ESTABLISHED IN 1872

PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. XC, No. 5 — Thursday, January 30, 1930

Annual Bids For Government Paper Opened

Joint Congressional Printing Committee Opens Sealed Proposals on Monday for Supplying the Government Printing Office With Paper for One Year Beginning March 1, 1930—

Awards Will Be Announced on Monday of Next Week Feb. 3—List of the Bidders and Prices Submitted

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 27, 1930.—Bids were opened today before the Joint Congressional Committee on Printing for supplies of paper for the Government for the year beginning March 1, 1930. Edgar M. Kiess, Representative from Pennsylvania, presiding. The usual representation of bidders was on hand, including the Jessup & Moore Paper Company, the American Writing Paper Company, Reese & Reese, Old Dominion Paper Company, P. H. Glatfelter Company, Virginia Paper Company, United States Envelope Company, Union Envelope Company, United States Paper Goods Company, Whitaker Paper Company, and others. There were no unusual features about the opening and as compared with recent years there was a lesser number of informal bids received. The Joint Congressional Printing Committee will meet again on Monday, February 3, to make awards. The bids opened were as follows:

Standard News Print

No. 1—3,000,000 lbs., 24x36—64; rolls, 24, 36, and 48 inches wide (3-inch fiber cores, with metal ends).

Thos. J. McCormick Paper Corporation, New York City	3	cents
Reese & Reese, Baltimore, Md.	3.248	cents
Old Dominion Paper Co., Norfolk, Va.	3.689	cents

Machine-Finish Book

No. 3—800,000 lbs., 25x38—70; flat, cut 24x32, 28x38, and 31¼x45½ ins.

R. P. Andrews Paper Company, Washington	5.22	cents
Whitaker Paper Company, Baltimore, Md.	5.479	cents
P. H. Glatfelter & Co., Spring Grove, Pa.	5.29	cents
Barton, Duer & Koch Paper Co., Washington, D. C.	5.55	cents

No. 4—1,000,000 lbs., 25x38—70; flat, cut 24x38 and 38x48 ins.

R. P. Andrews Paper Co.	5.22	cents
Whitaker Paper Co.	5.429	cents
P. H. Glatfelter & Co.	5.29	cents
Barton, Duer & Koch Co.	5.55	cents

No. 5—1,000,000 lbs., 25x38—70; flat, cut 24x38 and 38x48 ins.

R. P. Andrews Paper Co.	5.22	cents
Whitaker Paper Co.	5.429	cents
P. H. Glatfelter & Co.	5.23	cents
Barton, Duer & Koch Co.	5.55	cents

No. 6—800,000 lbs., 25x38—70; rolls, 18, 21, and 23 ins. wide (3-inch cores).

The Michigan Paper Co., Plainwell, Mich.	5.09	cents
R. P. Andrews Paper Co.	5.08	cents
Whitaker Paper Company	5.079	cents
P. H. Glatfelter Co.	5.01	cents
Barton, Duer & Koch Paper Company	4.90	cents

No. 7—1,500,000 lbs., 25x38—70; rolls, 19 and 38 ins. wide (3-inch iron cores).

The Michigan Paper Company	5.09	cents
R. P. Andrews Paper Company	5.08	cents
Whitaker Paper Company	5.029	cents
P. H. Glatfelter Co.	5.01	cents
Barton, Duer & Koch Paper Company	4.90	cents

No. 8—1,500,000 lbs., 25x38—70; rolls, 19 and 38 ins. wide (3-inch iron cores).

Michigan Paper Company	5.09	cents
R. P. Andrews Paper Company	5.02	cents
Whitaker Paper Company	5.029	cents
P. H. Glatfelter Co.	5.01	cents
Barton, Duer & Koch Paper Co.	4.90	cents

No. 9—1,000,000 lbs., 25x38—70; rolls, 24, 36 and 48 ins. wide (3-inch iron cores).

Michigan Paper Company	5.09	cents
R. P. Andrews Paper Company	5.08	cents
Whitaker Paper Company	5.079	cents
P. H. Glatfelter Co.	5.01	cents
Barton, Duer & Koch Paper Co.	4.90	cents

No. 10—300,000 lbs., 25x38—80; rolls, 32 ins. wide (3-inch iron cores).

Reese & Reese	4.94	cents
R. P. Andrews Paper Co.	4.95	cents
Whitaker Paper Company	5.029	cents
P. H. Glatfelter Company	5.13	cents
Barton, Duer & Koch Paper Co.	4.65	cents

No. 11—1,200,000 lbs., 25x38—80; flat, cut 24x38, 33¾x64, and 38x48 ins.

Reese & Reese	5	cents
R. P. Andrews Paper Co.	4.95	cents
Whitaker Paper Co.	5.369	cents
P. H. Glatfelter & Co.	5.04	cents
Barton, Duer & Koch Paper Co.	5.30	cents

No. 12—500,000 lbs., 25x38—100; flat, cut 22¼x32¼, 24x38, 24¼x36¼, 32x42, 38x48, and 41x52 ins.

Reese & Reese	5.0	cents
R. P. Andrews Paper Co.	4.90	cents
Whitaker Paper Company	5.269	cents
P. H. Glatfelter & Company	5.04	cents
Barton, Duer & Koch Paper Company	5.15	cents

No. 13—50,000 lbs., 25x38—120 and 140; flat, cut 24x30 (grain as ordered), 29x41, and 38x48 ins. Min. order 7,500 lbs.

Reese & Reese	5.17	cents
R. P. Andrews Paper Company	5.10	cents
Whitaker Paper Company	5.569	cents
P. H. Glatfelter & Co.	5.24	cents

No. 14—50,000 lbs., blue and salmon, 25x38—70 and 100; flat, cut 25x38 and 38x48 ins. Min. order, one color, 5,000 lbs.

Reese & Reese	7.0	cents
R. P. Andrews Paper Co.	7.18	cents
Barton, Duer & Koch Paper Co.	7.15	cents

No. 15—100,000 lbs., for use on monotype machines, 25x38—100; rolls, 27 ins. wide (3-inch iron cores).

Barton, Duer & Koch Paper Co.	5.10	cents

Plant-Fiber Machine-Finish Book

No. 16—200,000 lbs., 25x38—40; rolls, 19, 38 and 48 ins. wide (3-inch iron cores).

R. P. Andrews Paper Co.	8.48	cents
P. H. Glatfelter & Co.	8.75	cents

Machine-Finish Book End Paper

No. 17—80,000 lbs., flat, 25x38—160; the grain to run the 38-inch way.

Lindemeyer & Harker, Baltimore, Md. ..... C.L.	7.68	cents
Old Dominion Paper Company	5.688	cents
R. P. Andrews Paper Company	5.73	cents
P. H. Glatfelter & Co.	5.79	cents

Antique Book

No. 18—50,000 lbs., 25x38—100; flat, cut 25x38 and 38x50 ins.

Reese & Reese	5.16	cents
Whitaker Paper Co.	5.77	cents
P. H. Glatfelter & Co.	5.16	cents

Light Weight Machine-Finish Book

No. 19—100,000 lbs., 25x38—60; flat, cut 32x48 and 38x48 ins.

50 Per Cent Rag Light Weight High Machine-Finish Book

R. P. Andrews Paper Co.	6.92	cents
P. H. Glatfelter & Co.	6.79	cents
Atlantic Paper Co., Philadelphia, Pa.	6.80	cents

No. 20—125,000 lbs., 25x38—60; flat, cut 32x48 and 38x48 ins.

Dillon Collins Co., Philadelphia, Pa.	9.90	cents
R. P. Andrews Paper Co.	12.0	cents
Whitaker Paper Co.	10.95	cents
Atlantic Paper Co., Philadelphia, Pa.	10.05	cents

50 Per Cent Rag Machine-Finish Book

No. 21—150,000 lbs., 25x38—80; flat, cut 32x48 ins.

Dillon Collins Co.	8.85	cents
Virginia Paper Co., Inc.	8.66	cents
R. P. Andrews Paper Co.	10.48	cents
Whitaker Paper Co.	10.25	cents
Atlantic Paper Co.	8.69	cents

No. 22—450,000 lbs., 25x38—80; flat, cut 38x48 ins.

Dillon Collins Co.	8.85	cents
Virginia Paper Co., Inc.	8.61	cents
R. P. Andrews Paper Co.	10.48	cents
Whitaker Paper Co.	10.25	cents
Atlantic Paper Co.	8.64	cents

No. 23—100,000 lbs., 25x38—80 and 90; flat, cut any size, min. width 24 ins., max. width 42 ins.

Dillon Collins Co.	8.85	cents
Virginia Paper Co., Inc.	8.66	cents
R. P. Andrews Paper Co.	10.48	cents
Whitaker Paper Co.	10.25	cents
Atlantic Paper Co.	8.69	cents

100 Per Cent Rag Machine-Finish Book

No. 24—40,000 lbs., 25x38—90; flat, cut 38x48 ins.; the grain to run lengthwise of the sheet.

Knowlton Brothers, Watertown, N. Y. ..... (1)	26.95	cents
Virginia Paper Co., Inc. ..... (2)	27.47	cents
American Writing Paper Co., Holyoke ..... (1)	25.50	cents
Whitaker Paper Co. ..... (3)	29.20	cents
Barton, Duer & Koch ..... (4)	32.00	cents
Atlantic Paper Co.	24.50	cents

(1) No. 1 White Shirt Cuttings.
(2) White Cuttings, New.
(3) 100 per cent New Cuttings.
(4) 85 per cent New Cotton Cuttings, 15 per cent Linen.

No. 25—40,000 lbs., 25x38—140; flat, cut 38x48 ins.; the grain to run lengthwise of the sheet.

Knowlton Brothers ..... (1)	26.95	cents
Virginia Paper Co., Inc. ..... (2)	26.47	cents
American Writing Paper Co. ..... (1)	25.50	cents
Whitaker Paper Co. ..... (3)	29.20	cents
Barton, Duer & Koch ..... (4)	30.00	cents
Atlantic Paper Co.	24.50	cents

Supercalendered Book

No. 26—90,000 lbs., 25x38—90; flat, cut 32x48 ins. Min. order 15,000 lbs.

Reese & Reese	5.26	cents
R. P. Andrews Paper Co.	5.27	cents
Whitaker Paper Co.	5.529	cents
P. H. Glatfelter & Co.	5.37	cents
Barton, Duer & Koch	5.40	cents

No. 27—550,000 lbs., 25x38—90; flat, cut 31¼x45½ ins.

Reese & Reese	5.26	cents
R. P. Andrews Paper Co.	5.22	cents
Whitaker Paper Co.	5.529	cents
P. H. Glatfelter & Co.	5.27	cents
Barton, Duer & Koch Paper Co.	5.40	cents

No. 28—1,000,000 lbs., 25x38—90; flat, cut 24x38 and 38x48 ins.

Reese & Reese	5.26	cents
R. P. Andrews Paper Co	5.22	cents
Whitaker Paper Co.	5.429	cents
P. H. Glatfelter & Co.	5.27	cents
Barton, Duer & Koch Paper Co.	5.40	cents

No. 29—900,000 lbs., 25x38—90; rolls, 38 ins. wide (3-inch iron cores).

Reese & Reese	5.05	cents
R. P. Andrews Paper Co.	5.02	cents
Whitaker Paper Co.	5.029	cents
P. H. Glatfelter & Co.	5.21	cents
Barton, Duer & Koch Paper Co.	5.00	cents

No. 30—900,000 lbs., 25x38—90; rolls, 38 ins. wide (3-inch iron cores).

Reese & Reese	5.05	cents
R. P. Andrews Paper Co.	5.02	cents
Whitaker Paper Co.	5.029	cents
P. H. Glatfelter & Co.	5.21	cents
Barton, Duer & Koch Paper Co.	5.00	cents

No. 31—40,000 lbs., 25x38—90 and 100; flat, cut any size, min. width 24 ins., max. width 42 ins. Min. order, one weight, 20,000 lbs.

Reese & Reese	5.26	cents
R. P. Andrews Paper Co.	5.34	cents
Whitaker Paper Co.	5.729	cents
P. H. Glatfelter & Co.	5.43	cents
Barton, Duer & Koch	5.05	cents

50 Per Cent Rag Supercalendered Book

No. 33—50,000 lbs., 25x38—80 and 90; flat, cut 32x48 ins. Min. order, one weight, 12,500 lbs.

Dillon Collins Co.	9.75	cents
R. P. Andrews Paper Co.	10.75	cents
Whitaker Paper Co.	11.25	cents
Atlantic Paper Co.	9.39	cents

Half-Tone Book

No. 34—180,000 lbs., 25x38—140; flat, cut 24x38 and 38x48 ins.

Dobler & Mudge, Baltimore, Md.	5.20	cents
Reese & Reese	5.26	cents
R. P. Andrews Paper Co.	5.20	cents
Whitaker Paper Co.	5.589	cents
P. H. Glatfelter & Co.	5.27	cents

Single-Coated Book

No. 35—500,000 lbs., 25x38—140; flat, cut 29x41, 38x48 and 41x52 ins.; the grain to run lengthwise of the sheet.

Dobler & Mudge	7.33	cents
Cauthorne Paper Co., Inc., Richmond, Va.	7.16	cents
Dillon Collins Co.	7.28	cents
Lindemeyer & Harker	7.27	cents
Michigan Paper Co.	7.25	cents
Reese & Reese	7.21	cents
Virginia Paper Co., Inc.	7.22	cents
R. P. Andrews Paper Co.	7.23	cents
Whitaker Paper Co.	6.889	cents
Barton, Duer & Koch Paper Co.	7.13	cents

Double-Coated Book

No. 36—150,000 lbs., 25x38—140 and 160; flat, cut 24x32, 24x38 and 38x48 ins.; the grain to run lengthwise of the sheet.

Dobler & Mudge	7.87	cents
Lindemeyer & Harker	7.81	cents
Reese & Reese	7.78	cents
Virginia Paper Co., Inc.	7.76	cents
R. P. Andrews Paper Co.	7.79	cents
Whitaker Paper Co.	7.219	cents
Barton, Duer & Koch	7.68	cents
Atlantic Paper Co.	7.60	cents

50 Per Cent Rag Double-Coated Book

No. 37—50,000 lbs., 25x38—140 and 160; flat, cut 24x32, 24x38, 32x42, 38x48 and 41x52 ins.; the grain to run lengthwise of the sheet.

Dobler & Mudge	12.01	cents
Dillon Collins Co.	11.85	cents
Reese & Reese	11.84	cents
R. P. Andrews Paper Co.	11.35	cents
Barton, Duer & Koch Paper Co.	11.72	cents

Machine-Finish Lithograph

No. 39—70,000 lbs., 25x38—160; flat, cut 19x24 and 24x38 ins.; the grain to run lengthwise of the sheet.

Dobler & Mudge	5.40	cents
Dillon Collins Co.	6.20	cents
American Writing Paper Co.	6.70	cents
R. P. Andrews Paper Co.	6.17	cents
Whitaker Paper Co.	6.09	cents
P. H. Glatfelter & Co.	6.13	cents

50 Per Cent Machine-Finish Lithograph

No. 40—80,000 lbs., 25x38—160; flat, cut 26x38 ins.; the grain to run lengthwise of the sheet.

Dillon Collins Co.	9.50	cents
American Writing Paper Co.	11.62	cents
R. P. Andrews Paper Co.	9.40	cents
Whitaker Paper Co.	11.10	cents
Atlantic Paper Co.	9.39	cents

Ground Wood Mimeograph

No. 41—40,000 lbs., No. 40, flat, cut 24½x30½, 24½x32, 24½x38 and 26x42½ ins.; the grain to run lengthwise of the sheet.

Old Dominion Paper Co.	(C.L.)	4.754 cents
Whitaker Paper Co.		5.90 cents
Barton, Duer & Koch Paper Co.		4.93 cents

Chemical Wood Mimeograph, White and Colored

No. 43—1,500,000 lbs., white, Nos. 40 and 48, flat, cut 24½x30½, 24½x32, 24½x38, and 26x42½ ins.; the grain to run lengthwise of the sheet.

Dobler & Mudge	5.35 cents
Old Dominion Paper Co.	5.589 cents
American Writing Paper Co.	6.40 cents
R. P. Andrews Paper Co.	4.99 cents
Whitaker Paper Co.	5.329 cents
P. H. Glatfelter & Co.	5.03 cents
Jessup & Moore Paper Co.	4.96 cents

No. 44—100,000 lbs., blue, buff, green, pink and yellow, No. 40, flat, cut 24½x30½, 24½x32, 24½x38 and 26x42½ ins.; the grain to run lengthwise of the sheet. Min. order, one color, 5,000 lbs.

Old Dominion Paper Co.	7.474 cents
American Writing Paper Co.	7.35 cents
Whitaker Paper Co.	7.485 cents
P. H. Glatfelter Co.	7.47 cents
Jessup & Moore Paper Co.	7.37 cents

30 Per Cent Rag Mimeograph

No. 47—1,200,000 lbs., Nos. 40 and 48, flat, cut 24½x30½, 24½x32, 24½x38, 26x42½ and 28½x34½ ins.; the grain to run lengthwise of the sheet.

Patten Paper Co., Ltd., Appleton, Wis.	7.43 cents
Dillon Collins Co.	7.40 cents
Old Dominion Paper Co.	7.309 cents
American Writing Paper Co.	8.00 cents
R. P. Andrews Paper Co.	8.69 cents
Whitaker Paper Co.	8.95 cents
Atlantic Paper Co.	7.37 cents
Jessup & Moore Paper Co.	7.17 cents

Blue U S M O Safety Writing, Safety or Sensitive Design

No. 51—700,000 lbs., No. 32, rolls, 11 and 22 ins. wide, 24 ins. in diameter (3-inch iron cores).

George LaMonte & Son, New York	8.56 cents
Perfect Safety Paper Co., Holyoke	8.47 cents
Reese & Reese	10.875 cents
R. P. Andrews Paper Co.	9.95 cents

U S M O Writing, White and Blue

No. 52—20,000 lbs., No. 32, rolls, 8½ ins. wide, 24 ins. in diameter (3-inch iron cores). Min. order, either color, 4,000 lbs.

Perfect Safety Paper Co.	8.00 cents
R. P. Andrews Paper Co.	9.00 cents

Safety Writing, Colored

No. 53—5,000 lbs., blue, gray, green, pink, salmon, and yellow, No. 40, flat, cut 17x28, 21x32, and 22x34 ins. Min. order, one color, 1,000 lbs.

Perfect Safety Paper Co.	12.25 cents
R. P. Andrews Paper Co.	13.56 cents

Sulphite Writing, White and Colored

No. 55—800,000 lbs., white, No. 32, flat, cut 21x32, 22x34, 24x38, 26x34½, 28x34, and 32x42 ins.

Dobler & Mudge	5.96 cents
Walker, Goulard Plehn Co., Inc., New York.....	6.65 cents
Old Dominion Paper Co.	6.118 cents
R. P. Andrews Paper Co.	6.25 cents
Whitaker Paper Co.	6.129 cents
Barton, Duer & Koch Paper Co.	6.11 cents
Atlantic Paper Co.	6.24 cents

No. 56—1,600,000 lbs., white, Nos. 40 and 48, flat, cut 21x32, 22x34, 23x36, 24x38, 28x34, and 32x42 ins.

Dobler & Mudge	6.01 cents
Walker, Goulard Plehn Co., Inc.	6.65 cents
Old Dominion Paper Co.	6.038 cents
Reese & Reese	6.40 cents
R. P. Andrews Paper Co.	6.15 cents
Whitaker Paper Co.	6.029 cents
Barton, Duer & Koch Paper Co.	5.93 cents
Atlantic Paper Co.	6.148 cents

No. 57—150,000 lbs., white, No. 26, rolls, min. width 16 ins., max. width 38 ins. (3-inch iron cores).

Dobler & Mudge	6.61 cents
Whitaker Paper Co.	6.939 cents
Barton, Duer & Koch Paper Co.	6.35 cents

No. 58—250,000 lbs., white, No. 32, rolls, min. width 16 ins., max. width 38 ins. (3-inch iron cores).

Dobler & Mudge	5.71 cents
Walker, Goulard Plehn Co., Inc.	6.40 cents
Old Dominion Paper Co.	6.137 cents
Whitaker Paper Co.	5.389 cents
Barton, Duer & Koch Paper Co.	5.73 cents

No. 59—500,000 lbs., white, Nos. 40 and 48, rolls, min. width 16 ins., max. width 38 ins. (3-inch iron cores).

Dobler & Mudge	5.66 cents
Walker, Goulard Plehn Co., Inc.	6.40 cents
Old Dominion Paper Co.	5.944 cents
Reese & Reese	6.25 cents
Whitaker Paper Co.	5.349 cents
Barton, Duer & Koch Paper Co.	5.73 cents

No. 60—15,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 26, flat, cut 21x32, 22x34, 24x38, and 28x34 ins. Min. order, one color, 5,000 lbs.

Aetna Paper Co., Dayton, Ohio	7.87 cents
Barton, Duer & Koch Paper Co.	7.70 cents

No. 61—550,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, Nos. 32 and 40, flat, cut 21x32, 22x34, 24x38, 27x35, 28x34, and 32x42 ins. Min. order, one color, 10,000 lbs.

Dobler & Mudge	6.97 cents
Old Dominion Paper Co.	6.524 cents
Aetna Paper Co.	7.57 cents
Barton, Duer & Koch Paper Co.	6.89 cents
Atlantic Paper Co.	6.63 cents

100 Per Cent Rag White Writing, Vellum Finish, Tub-Sized, Air-Dried

No. 63—5,000 lbs., No. 56, flat, cut 21x32 ins. Min. order, 2,500 lbs.

Old Dominion Paper Co.	21.09 cents
Barton, Duer & Koch Paper Co.	24.75 cents

Lithograph-Finish Map

No. 64—30,000 lbs., Nos. 32 and 40, flat, cut 24x38, 30x40, 32x48, 36x52, and 38x48 ins. Min. order, one substance, 5,000 lbs.

Old Dominion Paper Co.	(1)	8.998 cents
		9.442 cents
American Writing Paper Co.		9.89 cents
R. P. Andrews Paper Co.		9.39 cents
Atlantic Paper Co.		9.60 cents

(1) If in one shipment.

50 Per Cent Rag Lithograph-Finish Map, Tub-Sized, Air-Dried

No. 65—200,000 lbs., Nos. 40, 48 and 56, flat, cut 34x64, 36x44, 36x52, 38x44, 38x48, 40x52, 41x50, and 44x64 ins.; the grain to run lengthwise of the sheet.

Virginia Paper Co., Inc.	12.86 cents
Dobler & Mudge	13.50 cents
American Writing Paper Co.	13.86 cents
Barton, Duer & Koch Paper Co.	11.82 cents
Atlantic Paper Co.	12.19 cents

75 Per Cent Rag Lithograph-Finish Map, Tub-Sized, Air-Dried

No. 66—150,000 lbs., Nos. 32 and 40, flat, cut 24x38, 30x40, 32x48, 36x52, 38x48, 40x42, and 44x64 ins.; the grain to run lengthwise of the sheet.

Dobler & Mudge	17.75 cents
American Writing Paper Co.	17.64 cents
R. P. Andrews Paper Co.	16.49 cents
Barton, Duer & Koch Paper Co.	16.39 cents

No. 67—40,000 lbs., Nos. 48 and 56, flat, cut 38x44, 41x50, 44x54, and 44x64 ins.; the grain to run lengthwise of the sheet. Min. order, one substance, 5,000 lbs.

Dobler & Mudge	17.75 cents
American Writing Paper Co.	17.19 cents
Barton, Duer & Koch Paper Co.	16.39 cents
R. P. Andrews Paper Co.	16.49 cents

100 Per Cent White Chart, Litho-Finish Tub-Sized Air-Dried

No. 69—200,000 lbs., No. 96, flat, cut any size, min. width 22 ins., max. width 46 ins.; without markers; the grain to run lengthwise of the sheet unless otherwise specified.

Virginia Paper Co., Inc.	24.22 cents
American Writing Paper Co.	28.25 cents
R. P. Andrews Paper Co.	23.92 cents

Sulphite Manifold, White and Colored

No. 70—150,000 lbs., white, No. 18, flat, cut 17x28, 19x24, 21x32, and 22x34 ins.; the grain to run 21-inch way on 21x32-inch size.

Cauthorne Paper Co., Inc.	8.166 cents
Marquette Paper Co., Chicago, Ill.	8.25 cents
Old Dominion Paper Co.	8.329 cents
Orchard Paper Co., St. Louis, Mo.	8.90 cents

Atlantic Paper Co. ..... 8.31 cents
Reese & Reese ..... 8.44 cents
Barton, Duer & Koch ..... 8.28 cents
Virginia Paper Co., Inc. ..... 8.73 cents
Whitaker Paper Co. ..... 8.27 cents

No. 71—50,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 18, flat, cut 17x28, 19x24, 21x32, and 22x34 ins.; the grain to run 21-inch way on 21x32-inch size. Min. order, one color, 5,000 lbs.

Whitaker Paper Co. ..... 9.21 cents
Barton, Duer & Koch ..... 9.08 cents
Marquette Paper Co. ..... 9.00 cents
Virginia Paper Co., Inc. ..... 9.48 cents

No. 73—50,000 lbs., white, No. 14, flat, cut 17x28, 19x24, 21x32, and 22x34 ins.; the grain to run 21-inch way on 21x32-inch size. Min. order 5,000 lbs.

American Writing Paper Co. ..... 18.58 cents
Barton, Duer & Koch Paper Co. ..... 19.10 cents

No. 74—450,000 lbs., white, No. 18, flat, cut 17x28, 21x32, 22x34, and 24x38 ins.; the grain to run 21-inch way on 21x32-inch size.

W. L. Jones, Inc., New York City ..... 17.16 cents
Old Dominion Paper Co. ..... 15.998 cents
American Writing Paper Co. ..... 16.13 cents
Atlantic Paper Co. ..... 15.99 cents

No. 75—15,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 14, flat, cut 17x28, 19x24, 21x32, and 22x34 ins.; the grain to run 21-inch way on 21x32-inch size. Min. order one color, 3,000 lbs.

American Writing Paper Co. ..... 21.15 cents
Barton, Duer & Koch Paper Co. ..... 21.30 cents

No. 76—75,000 lbs., blue, buff, cherry, green, pink, salmon and yellow, No. 18, flat, cut 17x28, 21x32, 22x34, and 24x38 ins.; the grain to run 21-inch way on 21x32-inch size. Min. order, one color, 5,000 lbs.

50 Per Cent Manifold White and Colored

Old Dominion Paper Co. ..... 18.24 cents
American Writing Paper Co. ..... 17.50 cents
Barton, Duer & Koch Paper Co. ..... 18.40 cents
Atlantic Paper Co. ..... 18.43 cents

No. 78—35,000 lbs., white, No. 14, flat, cut 17x28, 19x24, 21x32, and 22x34 ins.; the grain to run the 21-inch way on 21x32-inch size. Min. order 5,000 lbs.

Old Dominion Paper Co. ..... 36.967 cents
Whitaker Paper Co. ..... 38.50 cents

No. 79—25,000 lbs., white, No. 18, flat, cut 17x28, 19x24, 21x32, and 22x34 ins.; the grain to run the 21-inch way on 21x32-inch size. Min. order 5,000 lbs.

Old Dominion Paper Co. ..... 31.217 cents
Whitaker Paper Co. ..... 33.00 cents

No. 80—20,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 14, flat, cut 17x28, 19x24, 21x32, 22x34 and 26x32 ins.; the grain to run the 21-inch way on 21x32-inch size. Min. order, one color, 3,000 lbs.

Whitaker Paper Co. ..... 39.50 cents

No. 81—25,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 18, flat, cut 17x28, 21x32, 22x34, and 24x38 ins.; the grain to run the 21-inch way on 21x32-inch size. Min. order one color, 5,000 lbs.

50 Per Cent Rag White Glazed Manifold

Whitaker Paper Co. ..... 34.50 cents

No. 83—60,000 lbs., No. 16, flat, cut 19x24 and 21x32 ins.; the grain to run the 21-inch way on 21x32-inch size. Min. order 10,000 lbs.

Dobler & Mudge ..... 24.74 cents
W. L. Jones, Inc. ..... 17.16 cents
R. P. Andrews Paper Co. ..... 24.90 cents

Sulphite Bond, White and Colored

No. 101—25,000 lbs., white, No. 26, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order 5,000 lbs.

Cauthorne Paper Co., Inc. ..... 6.98 cents
Whitaker Paper Co. ..... 7.22 cents
Barton, Duer & Koch Paper Co. ..... 7.52 cents

No. 102—1,000,000 lbs., white, Nos. 32 and 40, flat, cut any size, min. width 17 ins., max. width 32 ins.

Dobler & Mudge ..... 6.26 cents
Cauthorne Paper Co., Inc. ..... 6.419 cents
Walker, Goulard Plehn Co., Inc. ..... 6.65 cents
R. P. Andrews Paper Co. ..... 6.47 cents
Whitaker Paper Co. ..... 6.87 cents
Barton, Duer & Koch Paper Co. ..... 6.48 cents
Atlantic Paper Co. ..... 6.72 cents

No. 103—10,000 lbs., white, No. 48, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order 5,000 lbs.

Cauthorne Paper Co., Inc. ..... 6.53 cents
Walker, Goulard Plehn Co., Inc. ..... 6.90 cents
Reese & Reese ..... 6.80 cents
Whitaker Paper Co. ..... 6.87 cents
Barton, Duer & Koch ..... 6.26 cents

No. 104—100,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, Nos. 32 and 40, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order, one color, 5,000 lbs.

Cauthorne Paper Co., Inc. ..... 7.156 cents
Walker, Goulard Plehn Co., Inc. ..... 7.90 cents
Aetna Paper Co. ..... 7.67 cents
Whitaker Paper Co. ..... 7.87 cents
Barton, Duer & Koch Paper Co. ..... 7.27 cents
Atlantic Paper Co. ..... 7.69 cents

No. 105—10,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 48, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order, one color, 2,000 lbs.

Walker, Goulard Plehn Co., Inc. ..... 7.90 cents
Aetna Paper Co. ..... 7.67 cents
Barton, Duer & Koch Paper Co. ..... 7.27 cents

30 Per Cent Rag Bond, White and Colored, Tub-Sized, Air-Dried

No. 109—250,000 lbs., white, No. 26, flat, cut 21x32, 23x36, 24x38, and 28x34 ins.

Aetna Paper Co. ..... 13.01 cents

No. 110—800,000 lbs., white, No. 32, flat, cut any size, min. width 17 ins., max. width 32 ins.

Aetna Paper Co. ..... 10.21 cents

No. 111—1,000,000 lbs., white, No. 40, flat, cut any size, min. width 17 ins., max. width 32 ins.

Aetna Paper Co. ..... 9.81 cents
Atlantic Paper Co. ..... 10.90 cents

No. 112—1,000,000 lbs., white, No. 40, flat, cut any size, min. width 17 ins., max width 32 ins.

Aetna Paper Co. ..... 9.81 cents
Whitaker Paper Co. ..... 11.47 cents

No. 113—900,000 lbs., white, No. 48, flat, cut any size, min. width 17 ins., max. width 32 ins.

Aetna Paper Co. ..... 9.81 cents

No. 114—124,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 26, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order, one color, 3,000 lbs.

Aetna Paper Co. ..... 16.11 cents

No. 115—350,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 32, flat, cut any size, min. width 17 ins., max. width 32 ins.

Aetna Paper Co. ..... 11.91 cents
Barton, Duer & Koch Paper Co. ..... 11.95 cents

No. 116—300,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 40, flat, cut any size, min. width 17 ins., max. width 32 ins.

Aetna Paper Co. ..... 11.31 cents
Barton, Duer & Koch Paper Co. ..... 11.95 cents
Atlantic Paper Co. ..... 11.70 cents

No. 117—300,000 lbs., blue, buff, cherry, green, pink, salmon and yellow, No. 48, flat, cut any size, min. width 17 ins., max. width 32 ins.

Aetna Paper Co. ..... 11.31 cents
Barton, Duer & Koch Paper Co. ..... 11.95 cents

50 Per Cent Rag Bond, White and Colored, Tub-Sized, Air-Dried

No. 120—50,000 lbs., white, No. 26, flat, cut 21x32, 23x36, 24x38, and 28x34 ins.

R. P. Andrews Paper Co. ..... 15.37 cents
Barton, Duer & Koch Paper Co. ..... 14.70 cents

No. 121—1,000,000 lbs., white, Nos. 32 and 40, flat, cut any size, min. width 17 ins., max. width 32 ins.

Old Dominion Paper Co. ..... 12.749 cents
R. P. Andrews Paper Co. ..... 12.36 cents
Aetna Paper Co. ..... 11.91 cents
Barton, Duer & Koch Paper Co. ..... 12.40 cents
Atlantic Paper Co. ..... 12.24 cents

No. 122—100,000 lbs., white, No. 48, flat, cut any size, min. width 17 ins., max. width 32 ins.

Old Dominion Paper Co. ..... 12.749 cents
R. P. Andrews Paper Co. ..... 11.65 cents
Aetna Paper Co. ..... 12.19 cents
Barton, Duer & Koch Paper Co. ..... 12.40 cents
Atlantic Paper Co. ..... 12.34 cents

No. 123—15,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, Nos. 26, 32 and 40, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order, one color, one substance, 2,500 lbs.

Barton, Duer & Koch Paper Co.	13.77	cents

75 Per Cent Rag White Bond, Tub-Sized, Air-Dried

No. 125—6,000 lbs., No. 26, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order 2,500 lbs.

Barton, Duer & Koch Paper Co.	21.75	cents

No. 126—10,000 lbs., Nos. 32, 40, and 48, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order, one substance, 2,500 lbs.

Barton, Duer & Koch Paper Co.	17.95	cents

100 Per Cent Rag White Bond, Tub-Sized, Air-Dried

No. 128—12,000 lbs., Nos. 32 and 40, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order, one substance, 2,000 lbs.

Old Dominion Paper Co.	25.74	cents
Barton, Duer & Koch Paper Co.	25.75	cents
Atlantic Paper Co.	23.74	cents

No. 129—8,000 lbs., No. 48, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order 2,000 lbs.

Old Dominion Paper Co.	25.74	cents
Barton, Duer & Koch Paper Co.	25.85	cents
Atlantic Paper Co.	23.74	cents

Declaration Bond, Tub-Sized, Air-Dried

No. 130—12,000 lbs., Nos. 32 and 40, flat, cut 17x22 and 22x25½ ins. Min. order, one substance, 3,000 lbs.

Old Dominion Paper Co.	25.74	cents
Barton, Duer & Koch Paper Co.	26.00	cents

Parchment Deed, White and Cream, Tub-Sized, Air-Dried

No. 131—4,000 lbs., No. 64, flat, cut 33x34 ins. Min. order 2,000 lbs.

Old Dominion Paper Co.	26.49	cents
Barton, Duer & Koch Paper Co.	26.00	cents

Sulphite Ledger, White and Colored

No. 151—35,000 lbs., white, Nos. 56 and 64, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order, one substance, 5,000 lbs.

Dobler & Mudge	7.27	cents
Cauthorne Paper Co., Inc.	7.228	cents
American Writing Paper Co.	7.28	cents
R. P. Andrews Paper Co.	7.29	cents
Aetna Paper Co.	7.14	cents
Whitaker Paper Co.	7.29	cents
Barton, Duer & Koch Paper Co.	7.30	cents

No. 152—50,000 lbs., white, No. 80, flat, cut any size, min. width 17 ins., max. width 32 ins. Min. order 5,000 lbs.

Dobler & Mudge	7.27	cents
Cauthorne Paper Co., Inc.	7.228	cents
American Writing Paper Co.	7.28	cents
R. P. Andrews Paper Co.	7.29	cents
Aetna Paper Co.	7.14	cents
Whitaker Paper Co.	7.29	cents

No. 153—10,000 lbs., blue, buff, green, pink, salmon, and yellow, No. 80, flat, cut 21x32½ ins. Min. order, one color, 2,000 lbs.

Aetna Paper Co.	8.67	cents
Whitaker Paper Co.	8.62	cents

30 Per Cent Rag Ledger, White and Colored, Tub-Sized, Air-Dried

No. 154—25,000 lbs., white, Nos. 48 and 56, flat, cut 20x28, 21x32, 24x38, 28x29, and 28x34 ins. Min. order, one substance, 5,000 lbs.

Barton, Duer & Koch Paper Co.	10.64	cents
Atlantic Paper Co.	10.59	cents

No. 155—15,000 lbs., white, No. 64, flat, cut 21x32 and 23x36 ins. Min. order 5,000 lbs.

Barton, Duer & Koch Paper Co.	10.64	cents
Atlantic Paper Co.	10.59	cents

No. 156—15,000 lbs., white, No. 72, flat, cut 20x28, 21x32, 24x38, and 28x34 ins. Min. order 5,000 lbs.

Barton, Duer & Koch Paper Co.	10.64	cents
Atlantic Paper Co.	10.59	cents

No. 157—18,000 lbs., blue, buff, green, pink, salmon, and yellow, Nos. 56, 64, and 72, flat, cut 21x32, 23x36, 24x38, and 28x34 ins. Min. order, one substance, one color, 3,000 lbs.

Barton, Duer & Koch Paper Co.	12.20	cents

50 Per Cent Rag Ledger, White and Colored, Tub-Sized, Air-Dried

No. 160—100,000 lbs., white, Nos. 48 and 56, flat, cut 18½x36, 18½x40¼, 20x28, 21x32, 24x38, 28x29, and 28x34 ins. Min. order, one substance, 5,000 lbs.

Old Dominion Paper Co.	12.499	cents
Virginia Paper Co.	13.99	cents
Barton, Duer & Koch Paper Co.	12.07	cents
Atlantic Paper Co.	12.23	cents
R. P. Andrews Paper Co.	12.00	cents

No. 161—60,000 lbs., white, No. 64, flat, cut 21x32 and 23x36 ins. Min. order 5,000 lbs.

Old Dominion Paper Co.	12.499	cents
Virginia Paper Co., Inc.	13.99	cents
R. P. Andrews Paper Co.	12.00	cents
Barton, Duer & Koch Paper Co.	12.07	cents
Atlantic Paper Co.	12.23	cents

No. 162—90,000 lbs., white, Nos. 72 and 80, flat, cut 20x28, 21x32, 24x38, and 28x34 ins.

Old Dominion Paper Co.	12.499	cents
Virginia Paper Co.	13.99	cents
R. P. Andrews Paper Co.	12.00	cents
Barton, Duer & Koch Paper Co.	12.07	cents
Atlantic Paper Co.	12.23	cents

No. 163—50,000 lbs., white, No. 88, flat, cut 21x32½ ins. Min. order 5,000 lbs.

Old Dominion Paper Co.	12.499	cents
R. P. Andrews Paper Co.	12.00	cents
Barton, Duer & Koch Paper Co.	12.07	cents
Atlantic Paper Co.	12.33	cents

No. 164—70,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, Nos. 56, 64 and 72, flat, cut 18½x36, 18½x40¼, 19x24, 21x32, 23x36, and 28x34 ins. Min. order, one substance, one color, 3,000 lbs.

Barton, Duer & Koch Paper Co.	13.07	cents

No. 165—40,000 lbs., blue, buff, cherry, fawn, green, pink, salmon, and yellow, No. 88, flat, cut 21x32½ ins. Min. order, one color, 5,000 lbs.

Old Dominion Paper Co.	13.499	cents
Barton, Duer & Koch Paper Co.	13.07	cents

75 Per Cent Rag Ledger, White and Colored, Tub-Sized, Air-Dried

No. 168—30,000 lbs., white, Nos. 48 and 56, flat, cut 21x32, 24x38, 28x29, and 28x34 ins. Min. order, one substance, 5,000 lbs.

Dobler & Mudge	17.00	cents
Carew Manufacturing Co., South Hadley Falls, Mass.	17.35	cents
Old Dominion Paper Co.	15.189	cents
American Writing Paper Co.	20.38	cents
R. P. Andrews Paper Co.	14.64	cents
Barton, Duer & Koch Paper Co.	15.13	cents
Atlantic Paper Co.	14.99	cents

No. 169—30,000 lbs., white, No. 64, flat, cut 21x32, 23x36, 24x38, and 28x34 ins. Min. order 5,000 lbs.

Dobler & Mudge	17.00	cents
Carew Manufacturing Co.	17.35	cents
Old Dominion Paper Co.	15.189	cents
American Writing Paper Co.	20.38	cents
R. P. Andrews Paper Co.	14.64	cents
Barton, Duer & Koch Paper Co.	15.13	cents
Atlantic Paper Co.	14.99	cents

No. 170—40,000 lbs., white, Nos. 72 and 80, flat, cut 20x28, 21x32, 24x38, and 28x34 ins. Min. order, one substance, 5,000 lbs.

Dobler & Mudge	17.00	cents
Carew Manufacturing Co.	17.35	cents
Old Dominion Paper Co.	15.189	cents
American Writing Paper Co.	20.38	cents
R. P. Andrews Paper Co.	14.64	cents
Barton, Duer & Koch Paper Co.	15.13	cents
Atlantic Paper Co.	14.99	cents

No. 171—20,000 lbs., white, No. 88, flat, cut 21x32½ ins. Min. order 5,000 lbs.

Carew Manufacturing Co.	17.35	cents
Old Dominion Paper Co.	15.189	cents
American Writing Paper Co.	20.38	cents
R. P. Andrews Paper Co.	14.64	cents
Barton, Duer & Koch Paper Co.	15.13	cents
Atlantic Paper Co.	15.09	cents

No. 172—50,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, Nos. 56, 64, and 72, flat, cut 19x24, 21x32, 23x36, and 28x34 ins. Min. order, one substance, one color, 3,000 lbs.

Carew Manufacturing Co.	18.35	cents
Barton, Duer & Koch Paper Co.	16.17	cents

No. 173—12,000 lbs., blue, buff, cherry, fawn, green, pink, and yellow, No. 88, flat, cut 21x32½ ins. Min. order, one color, 4,000 lbs.

Carew Manufacturing Co.	18.35	cents
Barton, Duer & Koch Paper Co.	16.17	cents

100 Per Cent Rag White Ledger, Tub-Sized, Air-Dried

No. 176—30,000 lbs., No. 48, flat, cut 21x32, 22¾x31½, 23x36, 24x38, and 28x34 ins. Min. order 5,000 lbs.

Carew Manufacturing Co.	(5)	23.87	cents
Old Dominion Paper Co.	(3)	25.498	cents
American Writing Paper Co.	(1)	34.28	cents
Barton, Duer & Koch Paper Co.	(2)	24.85	cents
Atlantic Paper Co.		23.57	cents

(1) 100% New Rags Hosiery & Murlin.
(2) White Shirt Bleached, unbleached muslin underwear scraps etc.
(3) First Grade New Rag.
(5) New White Cotton Clippings bleached and unbleached.

No. 177—50,000 lbs., No. 56, flat, cut 20x28, 21x32, 23x36, 24x38, and 28x34 ins. Min. order 5,000 lbs.

Carew Manufacturing Co.	(5)	23.87	cents
Old Dominion Paper Co.	(3)	25.498	cents
American Writing Paper Co.	(1)	34.28	cents
Barton, Duer & Koch Paper Co.	(2)	24.85	cents
Atlantic Paper Co.		23.57	cents

No. 178—25,000 lbs., No. 64, flat, cut 18½x42, 21x32, 23x36, and 28x34 ins. Min. order 5,000 lbs.

Carew Manufacturing Co.	(5)	23.87	cents
Old Dominion Paper Co.	(3)	25.498	cents
American Writing Paper Co.	(1)	34.28	cents
Barton, Duer & Koch Paper Co.	(2)	24.85	cents
Atlantic Paper Co.		23.57	cents

No. 179—15,000 lbs., No. 72, flat, cut 20x28, 21x32, 24x38, and 28x34 ins. Min. order 5,000 lbs.

Carew Manufacturing Co.	(5)	23.87	cents
Old Dominion Paper Co.	(3)	25.498	cents
American Writing Paper Co.	(1)	34.28	cents
Barton, Duer & Koch Paper Co.	(2)	24.85	cents
Atlantic Paper Co.		23.57	cents

(3) First Grade new Rag.

No. 180—8,000 lbs., No. 80, flat, cut 21x32½ and 21x42 ins. Min. order 4,000 lbs.

Dobler & Mudge	(4)	23.60	cents
Carew Manufacturing Co.	(5)	23.87	cents
Old Dominion Paper Co.	(3)	25.498	cents
American Writing Paper Co.	(1)	34.28	cents
Barton, Duer & Koch Paper Co.	(2)	24.85	cents
Atlantic Paper Co.		23.67	cents

No. 181—30,000 lbs., No. 88, flat, cut 20½x24¾, 21x32½, and 22¾x31½ ins. Min. order 5,000 lbs.

Sulphite Index, White and Colored, Single-Ply

Dobler & Mudge	(4)	23.50	cents
Carew Manufacturing Co.	(5)	23.87	cents
Old Dominion Paper Co.	(3)	25.498	cents
American Writing Paper Co.	(1)	34.28	cents
Barton, Duer & Koch Paper Co.	(2)	24.85	cents
Atlantic Paper Co.		23.67	cents

(4) No. 1 White Canvas.

No. 184—60,000 lbs., white, 22½x28½—182 and 230; flat, cut 21x32½, 22½x28½, and 24½x32½ ins., with projecting colored-paper marker between each 100 sheets. Min. order, one weight, 10,000 lbs.

Dobler & Mudge	7.50	cents
Walker Goulard Plehn Co., Inc.	7.65	cents
Old Dominion Paper Co.	7.79	cents
Virginia Paper Co., Inc.	6.06	cents
American Writing Paper Co.	8.54	cents
R. P. Andrews Paper Co.	6.89	cents
Stanford Paper Co., Washington, D. C. (On sample)	8.27	cents
Whitaker Paper Co.	7.37	cents
Barton, Duer & Koch Paper Co.	7.25	cents

No. 185—5,000 lbs., white, 22½x28½,—280 and 362; flat, cut 21x32½ and 22½x28½ ins., with projecting colored-paper marker between each 100 sheets. Min. order, one weight, 2,500 lbs.

Walker Goulard Plehn Co., Inc.	7.65	cents
Old Dominion Paper Co.	7.99	cents
Virginia Paper Co., Inc.	9.78	cents
Stanford Paper Co. (On sample)	8.27	cents

No. 186—6,000 lbs., blue, buff, fawn, green, pink, salmon, and yellow, 22½x28½—182 and 230; flat, cut 21x32½ and 22½x28½ ins., with projecting colored-paper marker between each 100 sheets. Min. order, one color, one weight, 2,000 lbs.

Stanford Paper Co.	(On sample)	8.54	cents

No. 187—6,000 lbs., blue, buff, fawn, green, pink, salmon, and yellow, 22½x28½—280 and 362; flat, cut 21x32½ and 22½x28¼ ins., with projecting colored-paper marker between each 100 sheets. Min. order, one color, one weight, 2,000 lbs.

Stanford Paper Co.	(On sample)	8.54	cents

50 Per Cent Rag Index, White and Colored, Single-Ply

No. 190—120,000 lbs., white, 22½x28½—182 and 230; flat, 21x32½ and 22½x28¼ ins., with projecting colored-paper marker between each 100 sheets. Min. order, one weight, 5,000 lbs.

Carew Manufacturing Co.	13.39	cents
Carter Rice & Co. Corp., Boston, Mass.	13.67	cents
Old Dominion Paper Co.	13.999	cents
Virginia Paper Co., Inc.	12.25	cents
American Writing Paper Co.	13.82	cents
R. P. Andrews Paper Co.	13.30	cents
Barton, Duer & Koch Paper Co.	13.75	cents
The Aetna Paper Co.	13.74	cents

No. 191—15,000 lbs., white, 22½x28½—280 and 362; flat, cut 21x32½ and 22½x28½ ins., with projecting colored-paper marker between each 100 sheets. Min. order, one weight, 5,000 lbs.

Carew Manufacturing Co.	18.39	cents
Carter Rice & Co., Corp.	15.56	cents
Virginia Paper Co., Inc.	14.50	cents
Barton, Duer & Koch Paper Co.	18.70	cents

No. 192—90,000 lbs., blue, buff, fawn, green, pink, salmon, and yellow, 22½x28½—182 and 230; flat, cut 21x32½ and 22½x28½ ins., with projecting colored-paper marker between each 100 sheets. Min. order, one color, one weight, 5,000 lbs.

Carew Manufacturing Co.	14.49	cents
Virginia Paper Co., Inc.	14.00	cents
R. P. Andrews Paper Co.	14.84	cents
Barton, Duer & Koch Paper Co.	15.30	cents

No. 193—35,000 lbs., blue, buff, fawn, green, pink, salmon, and yellow, 22½x28½—280 and 362; flat, cut 21x32½ and 22½x28½ ins., with projecting colored-paper marker between each 100 sheets. Min. order, one color, one weight, 5,000 lbs.

Carew Manufacturing Co.	19.49	cents
Virginia Paper Co., Inc.	14.50	cents
Barton, Duer & Koch Paper Co.	23.00	cents

100 Per Cent Rag Index, White and Cream, Single-Ply, Tub-Sized, Air-Dried

No. 196—140,000 lbs., 22½x28½—approximately 206; flat, cut 20½x30½ and 21x32½ ins.

American Writing Paper Co.	28.15	cents
Barton, Duer & Koch Paper Co.	20.63	cents

White Tissue

No. 197—5,000 lbs., flat, 21x32—18. Min. order 1,000 lbs.

W. L. Jones, Inc.	11.25	cents
Old Dominion Paper Co.	10.98	cents
Barton, Duer & Koch Paper Co.	11.75	cents

Facing Stereo Tissue

No. 198—1,000 lbs., 19x24—9; rolls 24 ins. wide (3-inch cores). Min. order 500 lbs.

Cauthorne Paper Co., Inc.	84.68	cents

Coated Cover, Colored

No. 201—200,000 lbs., India tint, light green, light gray, and primrose, flat, 26½x41—208.

25 Per Cent Rag Machine-Finish Cover, Colored

Dobler & Mudge	7.48	cents
Carew Manufacturing Co.	21.79	cents
The Michigan Paper Co.	7.45	cents
Reese & Reese	7.40	cents
Virginia Paper Co., Inc.	7.38	cents
R. P. Andrews Paper Co.	7.40	cents
Whitaker Paper Co.	7.169	cents
Barton, Duer & Koch Paper Co.	7.29	cents
Atlantic Paper Co.	7.40	cents

No. 203—25,000 lbs., quaker drab, robin's egg, and terra cotta, flat, 20x24—96, in wrapped bundles, with projecting colored-paper marker between each 500 sheets. Min. order, one color, 2,500 lbs.

Knowlton Brothers		7.35	cents
Lindemeyer & Harker	(C. L.)	13.26	cents
	(L. C. L.)	13.66	cents
Old Dominion Paper Co.		7.619	cents
American Writing Paper Co.		7.38	cents
R. P. Andrews Paper Co.		7.24	cents

No. 204—120,000 lbs., blue, brown, granite, green, pink, tea, and yellow, 20x26—100; flat, cut 20x25 and 33x46 ins., in wrapped bundles, with projecting colored-paper marker between each 500 sheets. Min. order, one color, 5,000 lbs.

Knowlton Brothers		7.35	cents
Lindemeyer & Harker	(C. L.)	13.26	cents
	(L. C. L.)	13.66	cents
Old Dominion Paper Co.		7.279	cents
American Writing Paper Co.		7.38	cents
R. P. Andrews Paper Co.		7.19	cents

50 Per Cent Rag Laid Cover, Colored

No. 205—10,000 lbs. (Manufacturer's stock shades), blue, buff, cream white, gray, green and terra cotta, 20x26—130; flat, cut 20x24 and 26½x41 ins., in wrapped bundles, with projecting colored-paper marker between each 500 sheets. Min. order, one color, 1,250 lbs.

Lindemeyer & Harker	(C. L.)	15.24	cents
	(L. C. L.)	15.64	cents
R. P. Andrews Paper Co.		10.65	cents
Barton, Duer & Koch Paper Co.		19.55	cents

50 Per Cent Rag Antique Cover, Colored

No. 206—75,000 lbs., dawn, gobelin-blue, khaki, moss-green, sage, and suede, flat, 20x25—96, in wrapped bundles, with projecting colored-paper marker between each 500 sheets. Min. order, one color, 5,000 lbs.

Knowlton Brothers		8.45	cents
Lindemeyer & Harker	(C. L.)	15.24	cents
	(L. C. L.)	15.64	cents
American Writing Paper Co.		8.89	cents
R. P. Andrews Paper Co.		8.34	cents

Wood Manila

No. 209—300,000 lbs., 24x36—60 to 120; flat, cut 21x32 and 25x38 ins., in wrapped bundles, with projecting colored-paper marker between each 500 sheets.

Dobler & Mudge	3.79	cents
Thomas J. McCormick Paper Corp.	3.72	cents
Lindemeyer & Harker	5.55	cents
Old Dominion Paper Co.	4.494	cents
Whitaker Paper Co.	3.995	cents
Barton, Duer & Koch Paper Co.	4.03	cents

No. 210—500,000 lbs., 24x36—60 to 120; rolls, 9, 18, and 21 ins. wide (3-inch iron cores; except 9-inch rolls, which shall be wound on wooden plugs, 1½-inch hole).

Dobler & Mudge	3.54	cents
Thos. J. McCormick Paper Corp.	3.47	cents
Lindemeyer & Harker	5.73	cents
Old Dominion Paper Co.	4.494	cents
Whitaker Paper Co.	3.745	cents
Barton, Duer & Koch Paper Co.	3.98	cents

Sulphite Manila

No. 211—40,000 lbs., 24x36—100 to 160; flat, cut any size, in wrapped bundles of 500 sheets each. Min. order 10,000 lbs.

Walker Goulard Plehn Co., Inc.	(1)	7.25	cents
R. P. Andrews Paper Co.	(1)	7.34	cents
Stanford Paper Co.	(2)	5.99	cents
Barton Duer & Koch Paper Co.	(3)	6.28	cents

(1) Port Huron Sulphite Paper Co., Port Huron, Mich.
(2) Hollingsworth & Whitney Co.
(3) Racquette Paper Co.

No. 212—80,000 lbs., 24x36—160; rolls, 18 ins. wide (3-inch iron cores). Note: Bidder must state the name of the manufacturer of this paper.

Walker Goulard Plehn Co.	(1)	7.00	cents
R. P. Andrews Paper Co.	(1)	7.05	cents
Stanford Paper Co.	(2)	5.85	cents
Barton, Duer & Koch Paper Co.	(3)	6.20	cents

Rope Manila

No. 213—30,000 lbs., 24x36—120, 140 and 160; rolls, 48 ins. wide (3-inch iron cores). Min. order 10,000 lbs.

Reese & Reese	12.50	cents

No. 214—45,000 lbs., 24x36—280; rolls, 48 ins. wide (3-inch iron cores). Min. order 15,000 lbs.

Reese & Reese	11.50	cents

No. 2 Kraft

No. 217—300,000 lbs., 24x36—60 to 160; flat, cut any size, in wrapped bundles of 500 sheets each.

Walker Goulard Plehn Co., Inc.	4.50	cents
Lindemeyer & Harker	5.25	cents
Old Dominion Paper Co.	4.649	cents
Reese & Reese	4.335	cents
R. P. Andrews Paper Co.	4.155	cents
Whitaker Paper Co.	4.065	cents
Barton, Duer & Koch Paper Co.	4.315	cents

No. 218—450,000 lbs., 24x36—60 to 160; cut any size, folded (25 sheets per fold), in wrapped bundles of 500 sheets each.

Walker Goulard Plehn Co., Inc.	4.50	cents
Lindemeyer & Harker	5.25	cents
Old Dominion Paper Co.	4.649	cents
Reese & Reese	4.335	cents
R. P. Andrews Paper Co.	4.155	cents
Whitaker Paper Co.	4.065	cents
Barton, Duer & Koch Paper Co.	4.315	cents

No. 219—250,000 lbs., 24x36—60 to 160; rolls 11½, 24, 36, 39, and 48 ins. wide, wound on wooden plugs, 1½-inch hole, or on 3-inch iron cores as may be specified.

Walker Goulard Plehn Co., Inc.	4.25	cents
Lindemeyer & Harker	4.97	cents
Old Dominion Paper Co.	4.394	cents
Reese & Reese	4.18	cents
R. P. Andrews Paper Co.	3.91	cents
Whitaker Paper Co.	3.815	cents
Barton, Duer & Koch Paper Co.	4.07	cents

No. 1 Kraft

No. 220—20,000 lbs., 24x36—120 and 160; flat, cut any size, in wrapped bundles of 500 sheets each.

Lindemeyer & Harker		7.47	cents
Stanford Paper Co.	(On sample)	5.92	cents
Hollingsworth & Whitney Co.			
Whitaker Paper Co.		5.18	cents

High-Finish Sulphite Manila Tag

No. 221—200,000 lbs., 24x36—160 to 280; flat, cut any size, min. width 24 ins., max. width 38 ins., in wrapped bundles of 500 sheets each. Note: Bidder must state the name of the manufacturer of this paper.

Reese & Reese on Warren Manufacturing Co.	6.40	cents
American Writing Paper Co. on American Writing Paper Co.	6.64	cents
Stanford Paper Company on sample, Hollingsworth & Whitney	8.02	cents
Whitaker Paper Co. on C. A. Sorg Paper Co.	6.64	cents
Barton, Duer & Koch Paper Co. on Port Huron Sulphite & Paper Co.	6.70	cents
Atlantic Paper Co.	6.83	cents

Calendered Tag, Manila and Colored

No. 224—500,000 lbs., manila, 22½x28½—approximately 148; min. thickness, .0062 inch; max. thickness, .0070 inch. Rolls, 23½ and 26¾ ins. wide (6-inch iron cores).

Cauthorne Paper Co., Inc.	6.958	cents
Walker Goulard Plehn Co., Inc.	6.90	cents
Marquette Paper Co.	6.80	cents
American Writing Paper Co.	7.00	cents
Whitaker Paper Co.	6.90	cents
Barton, Duer & Koch Paper Co.	7.20	cents
Atlantic Paper Co.	7.07	cents

No. 225—200,000 lbs., blue, brown, green, pink, red, salmon, and yellow, 22½x28½—approximately 148; min. thickness, .0062 inch; max. thickness, .0070 inch. Rolls, 23½ and 26¾ ins. wide (6-inch iron cores). Min. order, one color, 5,000 lbs.

Walker Goulard Plehn Co., Inc.	7.40	cents
Marquette Paper Co.	7.06	cents
American Writing Paper Co.	7.50	cents
Whitaker Paper Co.	7.41	cents
Barton, Duer & Koch Paper Co.	7.84	cents
Atlantic Paper Co.	7.70	cents

Jute Tag

No. 227—120,000 lbs., 22½x28½—200 to 280; flat, cut any size, min. width 22 ins., max. width 32 ins., in wrapped bundles of 500 sheets each. Min. order, one weight, 5,000 lbs.

Reese & Reese	8.00	cents
American Writing Paper Co.	8.59	cents
Stanford Paper Co. (On sample, min. order 2½ tons)	8.02	cents
Whitaker Paper Co.	8.24	cents

Manila Board

No. 301—40,000 lbs., 22½x28½—400; flat, cut 17x28, 21x32, and 22½x28½ ins., in wrapped bundles of 500 sheets each, with projecting colored-paper marker between each 100 sheets. Min. order 5,000 lbs.

Whitaker Paper Co.	5.53	cents

Railroad Board, White and Colored

No. 302—70,000 sheets, white, flat, 22x28 ins., 4 ply, each 100 sheets fully banded, packed in wooden cases. Min. order 5,000 sheets.

Dobler & Mudge	$27.00
Old Dominion Paper Co.	$26.319
Virginia Paper Co., Inc.	$25.98
R. P. Andrews Paper Co.	$25.77
Stanford Paper Co.	$26.84
Whitaker Paper Co.	$25.53
Barton, Duer & Koch Paper Co.	$26.00

No. 303—10,000 sheets, white, flat, 22x28 ins., 8 ply, each 100 sheets fully banded, packed in wooden cases. Min. order 5,000 sheets.

Dobler & Mudge	$40.00
Old Dominion Paper Co.	$38.98
Virginia Paper Co., Inc.	$37.84
R. P. Andrews Paper Co.	$37.65
Stanford Paper Co.	$39.33
Whitaker Paper Co.	$37.53
Barton, Duer & Koch Paper Co.	$37.88

No. 304—15,000 sheets, white, flat, 22x28 ins., 14 ply, each 50 sheets fully banded, packed in wooden cases. Min. order 5,000 sheets.

Old Dominion Paper Co.	$58.49
Virginia Paper Co.	$60.80
R. P. Andrews Paper Co.	$56.50
Stanford Paper Co.	$59.04
Whitaker Paper Co.	$56.16
Barton, Duer & Koch Paper Co.	$56.63

No. 305—200,000 sheets, ash gray, blue, buff, green, lemon, and orange, flat, 22x28 ins., 4 ply, each 100 sheets fully banded, packed in wooden cases. Min. order, one color, 5,000 sheets.

Old Dominion Paper Co.	$30.849
Virginia Paper Co., Inc.	$28.45
Stanford Paper Co.	$31.49
Whitaker Paper Co.	$28.00
Barton, Duer & Koch Paper Co.	$30.30

Wood Bristol, Colored

No. 306—60,000 lbs., buff, 22½x28½—150; rolls 22 ins. wide (6-inch iron cores).

Old Dominion Paper Co.	4.597 cents
R. P. Andrews Paper Co.	4.907 cents

No. 307—200,000 lbs., blue, buff, gray, green, melon, pink, quaker-drab, and yellow; flat, 21x31—204, in wrapped bundles of 500 sheets each, with projecting colored-paper marker between each 100 sheets.

Old Dominion Paper Co.	4.597 cents
Reese & Reese	4.83 cents
R. P. Andrews Paper Co.	4.907 cents
Whitaker Paper Co.	4.53 cents

No. 308—300,000 lbs., blue, brown, buff, gray, green, melon, pink and yellow; 22½x28½—200; rolls, 20 ins. wide (6-inch iron cores).

Old Dominion Paper Co.	4.647 cents
Reese & Reese	4.705 cents
R. P. Andrews Paper Co.	4.907 cents
Whitaker Paper Co.	4.53 cents

No. 309—300,000 lbs., blue, brown, buff, gray, green, melon, pink and yellow; 22½x28½—200; rolls 20 ins. wide (6-inch iron cores).

Old Dominion Paper Co.	4.647 cents
Reese & Reese	4.705 cents
R. P. Andrews Paper Co.	4.907 cents
Whitaker Paper Co.	4.53 cents

No. 310—100,000 lbs., buff; 22½x28½—200; flat, cut 12x18 and 14½x17½ ins., the grain to run lengthwise of the sheet, in wrapped bundles of 500 sheets each.

Old Dominion Paper Co.	4.597 cents
Reese & Reese	4.955 cents
R. P. Andrews Paper Co.	4.907 cents
Whitaker Paper Co.	4.53 cents

U. S. Postal Card Bristol

No. 311—11,000,000 lbs., 22½x28½—188; rolls 33 ins. wide and 34 ins. in diameter (6-inch iron cores).

Virginia Paper Co. (100 tons per month)	4.544 cents
R. P. Andrews Paper Co.	4.72 cents
Whitaker Paper Co.	4.4285 cents
Jessup & Moore Paper Co.	4.71 cents

White Paraffin

No. 351—8,000 lbs., flat, 24x38—32. Min. order 1,000 lbs.

Cauthorne Paper Co., Inc.	11.97 cents
Henle Wax Paper Co., Inc., New York City (On sample)	12.00 cents
Walker Goulard Plehn Co., Inc.	12.50 cents
Lindemeyer & Harker	11.89 cents
R. P. Andrews Paper Co.	12.09 cents
Whitaker Paper Co.	11.875 cents

White Gummed

No. 352—300,000 sheets, flat, 17x22—40, exclusive of weight of gum used. Min. order 50,000 sheets.

Dobler & Mudge	$6.16
Carter, Rice & Co., Corp.	$7.70
Barton, Duer & Koch Paper Co.	$7.80
Eureka Special Printing Co., Scranton, Pa.	$5.90
Whitaker Paper Co.	$5.91
Old Dominion Paper Co.	$5.93
Stanford Paper Co.	$14.62
Virginia Paper Co., Inc.	$5.84
R. P. Andrews Paper Co.	$5.95

No. 353—10,000 sheets, flat, 20x24—54, exclusive of weight of gum used. Min. order 5,000 sheets.

Dobler & Mudge	$8.64
Carter Rice & Co., Corp.	$10.25
Eureka Specialty Printing Co.	$7.80
Old Dominion Paper Co.	$7.89
Virginia Paper Co., Inc.	$7.82
R. P. Andrews Paper Co.	$7.61
Stanford Paper Co.	$19.57
Whitaker Paper Co.	$7.93
Barton, Duer & Koch Paper Co.	$10.00

Blotting, White and Colored

No. 354—20,000 lbs., white, flat, 19x24—160; in wrapped bundles of 250 or 500 sheets. Min. order 4,000 lbs.

Dobler & Mudge	7.50 cents
Lindemeyer & Harker	7.75 cents
Old Dominion Paper Co.	5.94 cents
R. P. Andrews Paper Co.	5.90 cents
Whitaker Paper Co.	5.845 cents
Barton, Duer & Koch Paper Co.	7.48 cents

No. 355—20,000 lbs. (manufacturer's stock shade), buff and salmon, flat, 19x24—160; in wrapped bundles of 250 or 500 sheets. Min. order 4,000 lbs.

25 Per Cent Rag Blotting, White and Colored

Dobler & Mudge	7.75 cents
Lindemeyer & Harker	8.00 cents
Old Dominion Paper Co.	5.94 cents
R. P. Andrews Paper Co.	5.93 cents
Whitaker Paper Co.	5.945 cents
Barton, Duer & Koch Paper Co.	7.68 cents

No. 356—30,000 lbs., white, flat, 19x24—160; in wrapped bundles of 250 or 500 sheets. Min. order 4,000 lbs.

Dobler & Mudge	9.00 cents
Lindemeyer & Harker	11.00 cents
Old Dominion Paper Co.	7.439 cents
R. P. Andrews Paper Co.	6.98 cents
Whitaker Paper Co.	6.865 cents
Barton, Duer & Koch Paper Co.	8.91 cents

No. 357—12,000 lbs. (Manufacturer's stock shade), buff and salmon, flat, 19x24—160; in wrapped bundles of 250 or 500 sheets. Min. order, one color, 4,000 lbs.

Dobler & Mudge	9.25 cents
Lindemeyer & Harker	11.00 cents
Old Dominion Paper Co.	7.439 cents
R. P. Andrews Paper Co.	6.98 cents
Whitaker Paper Co.	6.985 cents
Barton, Duer & Koch Paper Co.	9.20 cents

Desk Blotting, Colored

No. 358—25,000 lbs. (manufacturer's stock shade), blue and buff, flat, 19x24—200; in wrapped bundles of 250 or 500 sheets. Min. order, one color, 5,000 lbs.

Dobler & Mudge	8.75 cents
Lindemeyer & Harker	8.00 cents
If Dark Blue	8.75 cents
Old Dominion Paper Co.	5.967 cents
Virginia Paper Co., Inc.	6.08 cents
R. P. Andrews Paper Co.	6.02 cents
Whitaker Paper Co.	6.025 cents
Barton, Duer & Koch Paper Co.	8.70 cents

No. 359—125,000 lbs., moss-green, flat, 19x24—200, in wrapped bundles of 250 or 500 sheets. Min. order, 10,000 lbs.

Dobler & Mudge	7.10 cents
Lindemeyer & Harker	8.75 cents
Old Dominion Paper Co.	6.428 cents
Virginia Paper Co., Inc.	6.47 cents
R. P. Andrews Paper Co.	6.54 cents
Whitaker Paper Co.	6.385 cents
Barton, Duer & Koch Paper Co.	7.15 cents

White Stereotype Molding

No. 360—4,000 lbs., 19x24—120; rolls, 24 ins. wide (3-inch iron cores). Min. order 1,000 lbs.

Dobler & Mudge	10.00 cents
Cautherne Paper Co., Inc.	10.22 cents
Old Dominion Paper Co.	9.64 cents
Barton, Duer & Koch Paper Co.	11.00 cents

Red Stereotype Molding

No. 361—3,000 lbs., 19x24—80; rolls, 24 ins. wide (3-inch iron cores). Min. order 1,000 lbs.

Dobler & Mudge	10.00 cents
Cauthorne Paper Co., Inc.	13.25 cents
Barton, Duer & Koch Paper Co.	12.50 cents

Oiled Manila Tympan

No. 362—30,000 lbs., 24x36—approximately 200; rolls, 38, 48, and 55 ins. wide; max. weight 150 lbs.; wound on wooden plugs, 1½-inch hole. Min. order 5,000 lbs.

Thos. Barrett & Sons, New York. (F.o.b. Washington, less 2% ten days)	9.00	cents
Reese & Reese	8.24	cents
Virginia Paper Co., Inc.	8.12	cents
Stanford Paper Co. (On sample)	7.85	cents
Whitaker Paper Co.	7.91	cents
Barton, Duer & Koch Paper Co.	8.05	cents

Plate Wiping, for Embossing Presses

No. 363—2,000 lbs., 24x36—100; rolls, 24 ins. wide (3-inch iron cores). Min. order 1,000 lbs.

Barton, Duer & Koch Paper Co.	7.95	cents

Back Lining, for Case-Making Machines

No. 364—600,000 lbs., 24x36—180; rolls, 12 ins. diameter, 9⅛, 11⅜, and 24 ins. wide, wound on wooden plugs, 1 or 1½-inch hole. Min. order 2,000 lbs.

Cauthorne Paper Co., Inc.	4.88	cents
Lindemeyer & Harker	4.21	cents
Whitaker Paper Co.	4.63	cents
Barton, Duer & Koch Paper Co.	4.75	cents

Pressboard, Colored

No. 365—30,000 sheets, red, flat, 24x32 ins., thickness .0140 inch. Min. order 5,000 sheets.

Lindemeyer & Harker	$5.60
Whitaker Paper Co.	$5.80
Barton, Duer & Koch Paper Co.	$6.15

No. 366—30,000 shets, gray, flat, 30x36 ins., thickness .0300 inch. Min. order 5,000 sheets.

Lindemeyer & Harker	(C. L.)	$18.75
	(L. C. L.)	$19.23
Barton, Duer & Koch Paper Co.		$19.60

News Board

No. 401—3,000 lbs., flat, 26x38 ins., No. 100. (To be trimmed square on four sides.) Min. order 1,000 lbs.

Lindemeyer & Harker	2.243	cents
Old Dominion Paper Co.	2.98	cents
Virginia Paper Co., Inc.	2.23	cents
R. P. Andrews Paper Co.	2.25	cents
Barton, Duer & Koch Paper Co.	2.40	cents

Chip Board

No. 402—800,000 lbs., 26x38 ins., No. 50; flat, cut 21½x32½, 24½x38, 26x38, 28½x32½, and 32½x42½ ins.

The La Boiteaux Co., Cincinnati, Ohio	1.745	cents
Dobler & Mudge	1.65	cents
Cauthorne Paper Co., Inc.	1.74	cents
Walker Goulard Plehn Co.	1.75	cents
Barton, Duer & Koch Paper Co.	1.85	cents
Lindemeyer & Harker	1.75	cents
R. P. Andrews Paper Co.	1.849	cents
Old Dominion Paper Co.	1.632	cents
Virginia Paper Co., Inc.	1.832	cents
Reese & Reese	1.618	cents

Marble Grained Lined Board

No. 403—40,000 lbs., 26x38 ins., No. 50; flat, cut 22x32 ins.

Whitaker Paper Co.	3.73	cents

Straw Board

No. 404—40,000 lbs., flat, 26x38 ins., No. 50.

The La Boiteaux Co.	2.025	cents
Walker Goulard Plehn Co.	2.25	cents
Lindemeyer & Harker	3.27	cents
Whitaker Paper Co.	3.05	cents

Lined Straw Board

No. 405—10,000 lbs., flat, 26x38 ins., No. 50.

The La Boiteaux Co. (L. C. L.)	3.645	cents
(C. L.)	3.10	cents

Lined Box Board

No. 406—80,000 lbs., lined on one side, 26x38 ins., No. 40; flat, cut 24½x34 ins. Min. order 36,000 lbs.

The La Boiteaux Co.	2.22	cents
Dobler & Mudge	2.41	cents
Lindemeyer & Harker	2.542	cents
Old Dominion Paper Co.	2.384	cents
Reese & Reese	2.361	cents
Virginia Paper Co., Inc.	2.44	cents
R. P. Andrews Paper Co.	2.448	cents
Barton, Duer & Koch Paper Co.	2.43	cents

Binders Board, Hard Rolled, No. 2 Quality

No. 407—800,000 lbs., flat, 25x30 ins., Nos. 16, 18, 20, 25, 30, and 40. Min. order 36,000 lbs.

Consolidated Paper Co., Monroe, Mich	3.05	cents
	Per ton	$70.00
Dobler & Mudge	3.05	cents
Lindemeyer & Harker	3.463	cents
R. P. Andrews Paper Co.	3.50	cents
Barton, Duer & Koch Paper Co.	3.587	cents

Binders Board, Hard Rolled, Best Quality

No. 408—100,000 lbs., flat, 20x30 ins., and 22x28 ins., Nos. 18, 20, 25, 30, 35, 40 and 45.

Consolidated Paper Co.	5.07	cents
	Per ton	$114.00
Dobler & Mudge	6.00	cents
R. P. Andrews Paper Co.	5.50	cents
Barton, Duer & Koch Paper Co.	5.50	cents

Watermarked Paper Case Postponed

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., January 27, 1930.—At the request of the government adjournment was taken this week until February 6 in the trial of officials of the International Brotherhood of Papermakers, the Alden Paper Company, and American Writing Paper Company, of Holyoke, on a charge of a violation of the Sherman Anti-Trust Law in the marketing of union watermarked paper. When Judge Bryant called the court to order United States Attorney Oliver D. Burden, of Syracuse, stated that he had encountered certain obstacles which made an adjournment imperative. He supplemented this by stating that two of the government's witnesses had been appointed to a certain labor commission which made it impossible for them to attend the trial. In addition to Matthew Burns, president of the International Brotherhood of Papermakers, other officials including Arthur Huggins, secretary, were on hand when court was called. Edward Alden, head of the Alden Paper Company, and Sidney Willson, president of the American Writing Paper Company, and attorneys representing their firms were also present. After a few minutes discussion Judge Bryant consented to the adjournment.

A conference to which every local in the International Brotherhood of Papermakers in this country and Canada will be invited to send delegates will be held in Montreal early in March, according to announcement made by the executive board. The coming conference will be devoted to the discussion of a possible increase in the price of paper; an upward wage adjustment; the curtailment of weekly operating time; the unemployment situation; an organizing program and the renewal or making of new wage and working agreements. At the close of the conference the representatives of the Papermakers' organization will hold a meeting with officials of the other trades affiliated with the industry, including the carpenters, electricians, firemen, machinists, pulp and sulphite workers. The sessions are expected to consume an entire week with the newly elected president, Matthew Burns, presiding.

Made General Manager of Western Board

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, MICH., January 30, 1930.—Clement F. Sisson, who succeeded Winship A. Hodge as general manager of the Western Board and Paper Company, has been named vice president of that concern and placed on the board of directors. He fills a vacancy on the board caused by the resignation of C. H. Kleinstock. Other directors were re-elected. The officers are: President, Charles G. Bard; vice-president, C. F. Sisson; treasurer, Michael Redmond; secretary, James P. Bachelder.

Puget Sound Mill To Be Ready Soon

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., January 11, 1930.—The plant of the Puget Sound Pulp and Timber company which has been under construction at Everett, Wash., will probably be ready two months ahead of schedule due to favorable weather and little interruption in the building program.

Tentative Course of Instruction

The Institute of Paper Chemistry—Appleton, Wis.
Spring Session—1930

I. INORGANTIC TECHNICAL ANALYSIS—*Professor Youtz.*

Methods of analysis and interpretation of the data obtained by the examination of important raw and intermediate materials used in the pulp and paper industry. This covers the analysis and interpretation of the results obtained of such materials as: coal and fuel oils, water for boiler and industrial purposes, sulphur, sulphur dioxide, sulphite cooking liquor, lime and limestone, green and white liquor, salt cake, soda ash, size and alum, fillers, glue and starch, bleach, etc.

2 hours lecture a week.
1 afternoon laboratory a week.

Textbooks:

1. Volumes III, IV, and V—"The Manufacture of Pulp and Paper."
2. Schwalbe-Sieber—"Chemische Betriebskontrolle."

II. CHEMISTRY OF CELLULOSE AND ALLIED PRODUCTS.—*Dr. Darling.*

The introductory course covers a discussion of the chemistry of the carbohydrates, their structure and reactions. This is followed by the chemistry of cellulose from the standpoint of its known chemical reactions, and a similar study is included of lignin. The laboratory work will consist of a study of the reactions of the sugars and cellulose, and the analysis of woods and pulp by the standard methods.

1 hour lecture a week.
1 afternoon laboratory a week.

Textbooks:

1. Emil Heuser—"Textbook of Cellulose Chemistry."
2. Hawley and Wise—"The Chemistry of Wood."
3. Standard Methods of Testing Used by the Forest Products Laboratory at Madison, Wisconsin.

III. STRUCTURE AND PHYSICAL PROPERTIES OF WOOD AND PLANTS —*Professor Rogers.*

The source, structure, and important properties of the raw, fibrous materials used in pulp making are discussed. Wood identification from a practical standpoint and suitability of the various woods for pulp purposes are included.

12 hours in total.

IV. MICROSCOPY OF PAPER FIBRES—*Dr. Otto Kress.*

The staining and identification of the various fibres used in paper making, and the analysis of fibre content of different kinds of paper are explained and practiced.

2 hours lecture a week.

Textbook:

1. "Paper Testing Methods."—TAPPI.

V. PAPER DYEING—*Dr. Otto Kress.*

The dyestuffs and pigments classified according to the method used in the industry are discussed from the standpoint of suitability, strength, fastness, etc. Dyeings will be made of all the important dyestuffs, shades matched, and dyes tested from a strength and money value.

1 hour lecture a week.
2 afternoons laboratory a week.

Textbook:

1. "The Manufacture of Pulp and Paper."—Volume IV.

VI. PAPER TESTING—*Dr. Otto Kress.*

The chemical and physical methods used in paper testing are discussed and practiced.

1 hour lecture a week.
1 afternoon laboratory a week.

Textbooks:

1. Volume V—"The Manufacture of Pulp and Paper."
2. "Paper Testing Methods"—TAPPI.

VII. PULPING PROCESSES—*Dr. Otto Kress.*

The mechanical, sulphite, soda, and sulphate processes, as well as the newer processes, such as the Semi-chemical and Kebra Processes, are discussed. Visits will be made to mills adjacent to Appleton, where these processes can be seen and studied in operation.

8 hours a week.

Textbook:

1. Volume III—"The Manufacture of Pulp and Paper."

VIII. TECHNICAL GERMAN—*Professor Cast.*

Advanced technical German to train the student so that he can use to advantage the technical German literature.

3 hours a week.

IX. ABSTRACTS AND BIBLIOGRAPHIES—*Miss Roseth.*

The methods and purposes of abstracting technical articles, the filing of abstracts, the methods of constructing bibliographies, and their use.

1 lecture a week.
Reports and Abstracts.

X. OUTSIDE LECTURES.

Experts on various subjects from the mills, as well as representatives from manufacturers selling supplies and equipment to the industry will give talks on their specialty.

PROPOSED SCHEDULE OF WORK.

Lecture Periods from 9 to 12 A. M., 6 days a week.
Laboratory Work from 1 to 5 P. M., 5 afternoons a week.

	Lecture Hours	Laboratory Afternoons
I. Inorganic Technical Analysis	2	1
II. Chemistry of Cellulose and Allied Products	1	1
III. Structure of Physical Properties of Wood and Plants	(12 hours in total)	
IV. Microscopy of Paper Fibres	2	0
V. Paper Dyeing	1	2
VI. Paper Testing	1	1
VII. Pulping Processes	8	0
VIII. Technical German	3	0
IX. Abstracts and Bibliographies	1	0
	19	5

Illinois Co. Elects Officers

KALAMAZOO, Mich., January 27, 1930.—The Illinois Envelope Company held its annual meeting Tuesday afternoon and re-elected all officers and directors as follows: President, W. B. Milham; vice-president, V. T. Barker; secretary-treasurer and general manager, M. S. McKinstry; directors, the officers and C. A. Fox, O. A. Milham. Charles Clarage and Abraham Van Bochove. The past year has been an excellent one with this concern.

Paper Manufacturers Prosper in Wisconsin

Annual Reports Show Increased Sales and Better Earnings During Past Year—Changes Providing For More Efficient Machinery and Other Equipment Have Resulted In Lower Production Costs—Outlook for Another Good Year Is Promising

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., January 27, 1930.—Annual meetings which are being held by various paper mills in Wisconsin at this time show that conditions during 1929 were generally satisfactory. Some mills report greatly increased sales and a better showing on earnings. The changes made in many mills to provide more efficient machinery and other equipment have resulted in lower production costs, and these improvements are reflected in profit statements. Wisconsin is now firmly established in the specialty field and manufacturers generally look for a good year in 1930. There have been no shutdowns except for repairs in practically all the mills.

Reports submitted at the annual meeting of the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis., last week indicated that 1929 had been satisfactory and that the prospects ahead were splendid. Most of the remodeling and enlarging has been completed so the company will not have these interruptions to contend with this year. High grade ground wood book papers can be made steadily from now on, in addition to a large output of news print. All of the directors were re-elected by the stockholders. They are as follows: George W. Mead, president of the company; R. L. Kraus, Theodore W. Brazeau, Stanton W. Mead, F. P. Hixon, W. D. Fowler and E. B. Redford.

Another pleasing step in the Wisconsin industry is the resumption of operations by the Union Bag and Paper Company's mill at Kaukauna, Wis. Wheels turned for the first time this week, with about forty employees back at the jobs they gave up early last summer. Some of the men have been employed for two weeks putting the mill in shape and repairing one of the large flumes. Only one machine will be operated for the present.

At the Kimberly-Clark Corporation's mill at Kimberly, Wis., nine men have been added to the night yard crew to take care of incoming pulpwood shipments, which are coming in rapidly at this time. The company will ship in 80,000 more cords of pulp wood than last year, it is reported.

Oppose Move to Reopen Rate Fixing Cases

Paper mills of the Fox River Valley will oppose the request made to the Interstate Commerce Commission by the Central Freight Association to reopen the rate fixing cases known as the "Minnesota and Ontario" and "Fox River Valley" cases. The carriers believe that the Hoch Smith resolution calls upon the commission to give greater consideration to the value of products in fixing rate cases, and that a re-hearing will cause changes beneficial to the carriers. A comparison is made, for instance, between coal hauled five miles at 175 per cent of its value and paper hauled the same distance for 4.6 per cent of its value. Mills generally have been satisfied with the rulings in these cases and do not believe they should be reopened.

Consolidated's Fine Safety Record

Considerable pride is felt by the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis., in its completion of the year 1929 without a fatal accident. Usually the safety efforts of the year do not quite accomplish their goal, and some deaths occur. Despite considerable building activity and changes in machinery and production methods, the employees gave more heed than ever to caution at their work. The company does its own handling of pulpwood from its docks at Ashland, using many cranes and switch engines, with their extra hazards. The record includes 1,250 employees. October was the perfect month, without a lost time accident. Safety will be given added stress in 1930 so as to improve on the record of 1929. The past year was the best in the company's history.

Safety schools are in progress with a good attendance at the present time in both Appleton and Green Bay, Wis. The latter city had 600 present at an address given by Dr. Ernest C. Corn, field representative of the National Safety Council, whose subject was "The Unfinished Task." Arrangements were made for a community safety program. The Green Bay men and Dr. Corn also spent a day in Appleton holding conferences with industrial, business and educational representatives and laid foundations for a community safety campaign there.

May Erect Power Dam Near Necedah

Residents of Necedah, Wis., a village in Western Wisconsin, are circulating reports that the Nekoosa-Edwards Paper Company will erect a power dam on the Wisconsin River in their locality. Land purchases along both sides of the river have been going on for some time by unidentified persons, and surveyors have been at work for two years. It is reported that a lake more than 25 miles long will be impounded. The proximity of the tree planting operations of the paper company lends credence to the placing of a dam there in the future. No official announcement has ever been made.

News of the Industry

Reforestation aid for Wisconsin is provided in a bill which has been introduced in Congress. The government is asked to appropriate approximately $75,000 annually for forestry activities in five northern counties where much of the pulp wood is obtained. This money will be used for local labor and the planting of 10,000 to 15,000 acres of trees on denuded lands.

Trade-marks of "Sani-Lux" and "Healthtex" have been granted to the Wisconsin Tissue Mills, Menasha, Wis., by the United States Patent Office. These names will designate the company's line of toilet paper, towels and napkins.

Officers elected by the Nepco Employees Mutual Benefit Association of the Nekoosa-Edwards Paper Company, Nekoosa, Wis., at the annual banquet are: President, H. P. Palmatier; vice president, J. W. Youngchild; secretary, Mrs. Josephine C. Olson The board of directors includes these representatives of the company: L. M. Alexander, C. A. Jasperson, J. E. Alexander and F. H. Rosebush. L. M. Alexander gave a talk on the history and purposes of the organization.

Announcement is made of the death of Ernest G. Timme, of Appleton, Wis. He was superintendent of the Fox River Paper Company a number of years ago and previous to that time was superintendent of mills in New Hampshire. Burial took place at Appleton.

Standard Paper Co. Incorporates

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., January 27, 1930.—Articles of incorporation have been filed with the secretary of state of Indiana by the Standard Paper Company having a principal place of business in this city. The corporation has an initial capital stock of 100 shares having no declared par value and is formed to do a general paper business. The first board of directors is composed of L. F. Kahn, Charles F. Kahn and S. C. Kahn. The company has been operating for several years as a partnership and is one of the largest paper organizations in the state.

Demand for Paper Broadening in Philadelphia

Wholesale Trade Improving Slowly After Holiday Lull, Although Consumers Are Inclined to be Cautious and Are Stocking For Immediate Future Only—Coarse Paper Market More Active—Standard Grades of Fine Paper In Only Moderate Request

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., January 27, 1930.—While present day business is slowly broadening there is still lacking that vigorous business trend which might be expected at this season, following the holidays. There is no hurry on the part of distributors to stock in quantity, as the present markets are of the hand to mouth type, except where contract orders are obtained by mill representatives and those who cater to large consumers in wholesale lots. The wholesale markets, too, are improving slowly after a very satisfactory 1929. New contracts under wholesale prices are for from two to three months, indicating the cautiousness of the consumer, who is stocking only for the immediate future.

The notable factor in the wrapping paper market during the past week was the break in kraft prices which have been fairly firm since the early year. On January 20th, notice was sent to the wrapping paper dealers of reduction of the price of krafts which give a value reduced from a fraction to one cent a pound over the quotations made earlier in the month. While the mills that have made this reduction are in the southern field it is expected similar cuts will be effective in Northern kraft to bring values on a parity with Southern kraft. With this latest reduction prices are at the levels of last March, when the first rise was made in the price schedule of 1929. It is believed that mills will return to the higher quotations of late Fall as soon as sufficient tonnage is secured to maintain operations for the next month or so and that the present recessions are only temporary.

Wrapping papers are more active as the season advances and this division of the industry is livelier than the fine paper. There is continued activity in the various specialties handled by the local dealers. Tissues are firm and in fair demand. Bags are steadier but are not moving in the volume desired. Large bag manufacturers are holding prices but small independents are making concessions to promote business. Building papers are quieter as the winter retards outdoor construction. Box makers' papers are slower but a few grades used by manufacturers of papeteries and fancy stationery boxes are in demand. Sanitary products are less active. Boards are quieter as the trade awaits depletion of consumers supplies bought when price cutting was at its height last year.

Fine papers, while fairly active among distributors, are being purchased in hand to mouth quantities that indicate cautiousness on the part of small printers and while there is keen competition, the trade is looking ahead to greater demand with the coming month as the January inventory shows supplies on hand in the consumers shops at low ebb. Book papers are the most active of the list among the wholesalers while a good demand has been noted among the larger distributors and mills in better grades of writing papers.

Paper stock has sunk to the lowest levels of the post war years as drastic cuts were made with the current year after a similar inroad in values just after the holidays. There is scarcely any market to govern present day valuation so that almost any price is made to move the stocks accumulating. Some of the wholesalers of paper stock have refused to buy until present accumulations are moved. Rag dealers are in similar straights although wiping rags are moving better and are the most active of the list. Mills are not interested in present day buying so that the cheaper grades of stocks, such as those that enter into the production of paper board, are the most affected in the drastic reductions. The better grades of new paper stock hold. Writing papers are now laggards and have been cut with the commoner grades. Roofing rags are subjected to cutting in the rag market but other grades are holding. There is little demand for roofing stock as the manufacturers are in the midst of the winter slump. The larger paper stock dealers announce that they will not take on any new accounts at the present market levels but will take care of the requirements of their old customers, as business does not warrant traffic in paper stock at these destructive values.

Paper Trade Associates Lauded

At the meeting of the Philadelphia Paper Trade Association, held at the Benjamin Franklin Hotel last Friday, special tribute was paid to associates of that organization by the officials and by the members of the local trade body. The newly elected President, W. S. Wilcox, was extolled by his associates as a capable and efficient official whose long years of connection with the paper trade gave him the broad knowledge necessary for the functioning of so important an office as president of the association. Mr. Wilcox has been linked with the Philadelphia paper trade since 1917 when he joined the D. L. Ward Company as vice-president, leaving that concern to join with E. F. Walter and Thomas S. Furlong in organizing the present firm of Wilcox, Walter Furlong, with which he is associated as senior member. Previous to joining the D. L. Ward Company he was for 25 years secretary and sales manager of the Fort Ticonderoga Pulp and Paper Company, of New York. For the past year he was vice president of the Philadelphia Paper Trade Association, being honored with the presidency at the annual meeting this month.

Trade Pays Tribute to Leon Beck

Members of the Philadelphia Paper Trade Association paid special tribute to Leon Beck, of the Charles Beck Paper Company, in a rising vote of thanks of the association and appreciation of his many years of capable and loyal service in contact with the parent organization while serving as fine paper delegate to the National association. Mr. Beck retired as fine paper delegate and Norbert A. Considine, of the Paper House of Pennsylvania, was appointed his successor to the National association.

Thomas W. Fort, Jr., Receives Appreciation

The members of the Philadelphia Paper Trade Association were most interested and expressed to Thomas W. Fort, Jr., their hearty appreciation of his excellent and practical discussion of present day conditions in the paper market at the meeting. Mr. Fort, who is head of the Thomas W. Price Company, with which he has been linked for more than half a century, rising in that time to the head of the firm, joined for the first time this year the Philadelphia Paper Trade organization although for years he has been a noted character in the industry and one of its most successful members. His election to the association was one of the most important events, as he is looked upon as the Dean of the fine paper industry in this city. His talk on the history and progress of the trade and the Price Company was most informative and his explanation of the principles upon which it was built and founded were high lighted as his reasons for maintaining an independent position throughout the many years of its existence. Mr. Fort stated, however, that with the many new elements entering into the complicated present day distribution of paper, he realized the time had arrived for the good of the entire industry, that he should lend a hand to the solution of problems and if the Paper Trade Association of Philadelphia would like to have him as a member, he had placed his sigend application in the hands of

George W. Ward, of the D. L. Ward Company, for presentation to the association. The application had previously met the unanimous approval of the members and the Price Company was admitted to the ranks of organized paper distribution.

Commendation for A. B. Sherrill

Arthur B. Sherrill, who was guest at the meeting of the Philadelphia Paper Trade Association meeting and who on January 1 retired as general manager and vice president of the Reigel & Co., Inc., now the Paper Merchants, Inc., spoke feelingly of his 26 years association with the organization and with the Philadelphia paper trade and regretted his retirement from the local industry and the happy affiliations which he had enjoyed in its contact. Retired President Simon Walter, of the local association, expressed his deep appreciation and that of the membership for the many years of co-operation which Mr. Sherrill had extended the trade as a former president of the Philadelphia association and in the service of other offices with the local organization and as an individual linked with the distribution of paper and the interest in the welfare of its followers and business progress.

Van Reed Co. Meets at Reading

The first annual meeting of the Van Reed Paper Company since its reorganization last summer, was held at the headquarters in Reading, Pa., last Saturday when the merged companies of the Garrett-Buchanan Company and the upstate distribution house joined in the session. The stockholders of the company, after electing the board of directors, discussed plans for the expansion of business to take care of the growth that has occurred since the two companies united their businesses. Those who were elected to the Board of Directors are Morgan H. Thomas, president of the Garrett-Buchanan Company; C. Raymond Van Reed, head of the Van Reed Paper Company; C. Raymond Smith and Isaac Zinn, of the Van Reed Company, and Edward A. Keller, of the Garrett-Buchanan Company. After reporting on the year's business and its increased scope during the past year plans were discussed for the addition of another building to the present one at Reed and Elm streets, Reading. It was planned that a twin building be added to the present structure on the site now occupied by the Van Reed Paper Company headquarters and to adjoin the present quarters. The board of directors elected all the officers who were installed at the reorganization meeting of the Van Reed Paper Company last September with Morgan H. Thomas, of the Garrett-Buchanan Company, as president. The Van Reed Paper Company is one of the oldest paper manufacturing and distribution concerns in this section and dates back to 1747. It was the first paper mill to be erected in Reading by John Van Reed, who learned the paper making trade in Holland. Last September the firm was jointed in interests with the Philadelphia paper concern the Garrett-Buchanan Company, the latter taking the business over at a sum estimated at $200,000, although the Reading house still remained under its old title, the Van Reed Paper Company, dealing in fine and wrapping papers and specialties of various kinds.

Champion Coated Paper Co. Line Up

With the change in the policies of the Champion Coated Paper Company for the purpose of effecting improvements in its products and its services in the industry, there was sent to the Philadelphia trade last week an announcement from the manufacturers at Hamilton, Ohio, of the line-up of Champion mill brand names and the Champion distributors in the Atlantic territory. Heretofore several Philadelphia distributors had their own brands of paper produced by the Champion Coated Paper Company, but distributed by the individual concerns under their private marks. This policy of making individual or private brands has been abandoned by the firm at the suggestion of the distributors who believed it best for all concerned that Champion mill brand names be established in a uniform distribution of its products which would add materially to its merits as standardized paper brands of national reputation similar to that distribution carried out by other fine paper mills with nationally known marks. "This line-up enables the Champion Coated Paper Company and its distributors to give even better service to those interested in buying and production of printing" says the announcement made by the manufacturers. Each of the fine printing papers produced by Champion has its own individual name which has been adopted by the mills as standard brands for distribution by those houses already linked with the Champion Coated Paper Company for many years and who formerly distributed its lines under their own brands as well as regular mill grades. The Philadelphia offices will continue as heretofore with Charles A. Labor, manager of the Quaker City headquarters Room 572 Drexel Building, 5th and Chestnut street. The paper houses which will be linked in the Atlantic territory, coming directly under the Philadelphia offices are:—The Whitaker Paper Company, Baltimore, Md.; Stephens & Co., Inc., Binghamton, N. Y.; Johnston Paper Company, Harrisburg, Pa.; Old Dominion Paper Company, Norfolk, Va.; Garrett-Buchanan Company, A. Hartung Inc., The Paper House of Pennsylvania, all of Philadelphia.; Epes-Fitzgerald Paper Company, Raleigh, N. C.; Van Reed Paper Company, (Garrett-Buchanan Company Division); Reading, Pa.; Epes-Fitzgerald Paper Company, Richmond, Va.; Magargee Brothers, Inc., Scranton, Pa., F. T. Parsons Paper Company, Washington, D. C.; and the Whitaker Paper Company, Washington, D. C. The entire Philadelphia territory extends as far south as Jacksonville, Fla., along the Atlantic Seaboard from as far north as Binghamton, N. Y. Other sales offices for the Champion Coated Paper Company in the Atlantic Territory, are located in New York and in Boston. There are 24 mill brands involved in the coated, uncoated and blanks and postcard stocks made under Champion labels. Hand sample books shortly will be distributed in the trade with the imprint of the Champion distributor. These will be supplemented by a generous supply of specimens and demonstration pieces for display and samples.

Hinde & Dauche Paper Co.'s New Sales Manager

With the changes effective in the Philadelpha offices of the Hinde and Dauche Paper Company, through the appointment of Harry P. Johnson as local sales manager, further personnel developments were announced in the home office executives. R. W. Whitney, who last December was a visitor to the Philadelphia headquarters, was on January 20 appointed sales manager of the Hinde and Dauche Paper Company, headquarters at Sandusky, Ohio as successor to L. D. Morton, who has been assigned Director of Service and Sales Promotion, a division of the business which will be devoted to the development of new uses and new fields for consumption of containers and other work that will expand the consumption of these products. This service will be at the disposal of the Philadelphia trade and will be conducted in co-operation with the branch offices here and elsewhere.

Philadelphians Protest Gypsum Tariff

In order to protect the newly opened West Philadelphia enterprise, which has been sponsored by the United States Gypsum Company, through the erection of a large plant with mills and warehouses along the Schuykill River, there was held last week a meeting of the West Philadelphia Chamber of Commerce, for the purpose of going on record as protestants against the imposition of $3 a ton on imported crude gypsum used by the latter concern in the manufacture of gypsum board for building purposes. Declaring that the imposition of this tariff would be "detrimental to industry and jeopardize an investment of millions of dollars" the Chamber went on record as opposed to the amendment which would provide for the levy in the pending tariff bill. Letters expressing the stand of the Chamber were sent to Senators Reed and Grundy. They state that such a tariff would be harmful to the United States Gypsum Company, which gives employment to a large number of persons. The plant of the Company was started two years ago and covers a large acreage along the Schuylkill and it has been expanding with new mills and equipment that has added materially to its progress since coming to the Quaker City.

News Print Price Situation Is More Hopeful

Leading Representatives of Industry Confer With Premier Taschereau at Quebec City—Discuss Outstanding Problems and Best Measures For Their Solution—Hearst Contract With International Said to be For Five Years at Lowest Market Price

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., January 27, 1930.—Fits of the blues seem to alternate with spasms of sunny optimism in the news print industry there days. Last week was the innings of the blues; this week sunshine seems to be breaking through the clouds. The reason for the change is that during the week there has been another conference between the news print executives and Premier Taschereau, attended among others by A. R. Graustein, the president of the International Paper Company. Owing to the Provincial Legislature being in session, the conference was held in Quebec City. It lasted for two hours, and at the conclusion a non-committal statement was issued by Premier Taschereau to the effect that "representatives of the industry had met together to discuss the outstanding problems confronting the industry, at the present time, and the best measures for their solution." Nothing more definite could be gleaned; nevertheless a more hopeful atmosphere has put a spirit of cheer into the industry's executives. Besides the Premier and Mr. Graustein, those who attended included: Brigadier-General J. B. White, president of the Canadian International Paper Company; Senator Donat Raymond of Montreal; Senator Smeaton White; A. Geoffrion, K.C., A. H. Head, J. M. McCarthy, vice president of Price Brothers, J. W. McConnell and J. H. Fortier of Quebec.

The Hearst Contract

There has been quite a little comment here on the remarks which Premier Taschereau made in the legislature, prior to the conference mentioned above, about the International Paper Company and its contract with the Hearst interests. The terms of this contract, it appears, are not known in the industry here. Consequently Premier Taschereau appears to have more definite information than the trade itself when he said:

"The harm comes, I may say, from an untimely contract made by the International Paper Company with the Hearst interests, a contract for five years at $55 a ton. It is this contract which it seems impossible to get rid of that is the cause of the trouble, for it fixes a price in the United States which all wish to obtain. I will frankly admit that I do not understand how a company could engage itself for five years to sell its paper at fixed price when it does not know how much its raw material is to cost, and that it may have to count on the ill-will of the government which has furnished it and which holds it responsible for the troubles encountered by the industry."

Your correspondent is informed from reliable sources that Premier Taschereau was misinformed in regard to the contract. The latter, it is said, is not for five years at the fixed price of $55 per ton, but is for five years at the lowest market price during that period. If this is true, then a very different complexion is put upon the matter.

Another News Print Merger

It is reported here that the details of the merger of the Brompton, St. Lawrence and Lake St. John Pulp and Paper Companies have been completed, and that only a legal technicality now engaging the attention of the lawyers connected with the work delays the announcement of the plans.

It is understood that a new holding company will form part of the arrangement and that the three companies will retain their corporate identities.

Control of the common stock of the new company will, it is stated be vested in St. Lawrence Paper. Brompton is to receive share for share Class "A" stock carrying a dividend of $2.00 per share, of the new holding company, according to the present plans. This would give Brompton shareholders the same dividend as they are now receiving.

In order that Brompton holders may benefit from any improvement which may arise in the future fortunes of the industry they will have the option of exchanging their shares for those of St. Lawrence on the basis of two of the latter for one Brompton.

It is stated that the exchange of Lake St. John will be on the basis of seven-tenths of a share of the new company for one of theirs.

Canadian P. & P. Association's Annual

This week the annual meeting of the Canadian Pulp and Paper Association and the annual meetings of its various sections are taking place in Montreal. Representatives from all parts of the Dominion east of the Great Lakes were present, together with visitng officials from the United States. From the point of view of attendance, it looks as though the gathering will become one of the most successful in the history of the association. Great interest is being shown in the procedings, and especially in the reports which will deal with the news print situation.

News Print Exports Expand

Government returns show that the overseas markets for Canadian news print are steadily expanding. During the eleven months ended November last, shipments from this country totalled 309,515 tons. This compares with 238,243 tons in the corresponding period of the previous year. The relative standing of the United States as a market for Canadian news print, however, remains unchanged as will be seen from an examination of the following table:

	Eleven Months	
	1929	1928
United Kingdom	161,180	107,747
Cuba	7,736	9,542
Jamaica	905	863
Argentina	36,178	44,089
Other Latin America	8,163	3,304
South Africa	13,227	11,396
Australia	57,292	44,305
New Zealand	22,114	16,508
All other	2,720	489
Overseas Total	309,515	238,243
U. S. A.	1,980,948	1,755,182
Grand Total	2,290,463	1,993,425

Quebec Pulp & Paper Pays Subsidiary Debt

The funded debt of its subsidiary companies has now been retired by the Quebec Pulp and Paper Corporation, which now has outstanding only $7,000,000 of preferred stock and 100,000 shares of common, the latter being jointly owned by Price Bros. and Port Alfred Pulp and Paper Corporation, which in turn is controlled by Canada Power and Paper. In addition the company has made application to the provincial government to have the capital stock of Chicoutimi Freehold Estates, Ltd., reduced from $1,200,000 to $120,000.

Operations with the company have been fairly successful this year, though the report covering the year ended December 31 last, is not expected to show any material change from that of the preceding period.

There has been no change in the market position of the pre-

ferred shares of this company. No dividends have been paid nor are there likely to be any for some time. In assets, however, the preferred shares are amply protected.

Plans Rooted for 1000-ton News Print Mill

Sir William Coaker, a member of the Executive Council of the Dominion of Newfoundland, was in Montreal during the week. He stated that be was on his way to New York to confer with the Hearst interests regarding the establishment of a news print mill with a daily capacity of 1,000 tons in Newfoundland. The mill, he said, would be on the Gander River, and the contract for it would involve the granting of timber rights both in Newfoundland and Labrador. He also announced that negotiations were in progress with a syndicate representing English and Canadian capital for the granting to the latter of exclusive rights in the development of Labrador, subject of the confirmation of the timber leases proposed to be awarded to the Hearst interests for their news print mill. The syndicate in question looks to an expenditure involving $110,000,000, and it proposes to dispose of the timber rights to anyone wishing to develop them.

New Paper Factory for Montreal

Abbleford Paper Products, Limited, a concern established in Hamilton, Ont., same 20 years ago, are opening a branch factory in Montreal.

The new factory will be located at 6259 Notre Dame street, East. For some years the firm has carried a warehouse in Montreal but the volume of business in this territory has grown to such an extent as to warrant the establishment of a manufacturing plant.

The firm started business as manufacturers of Counter Check Books only. The name of the firm at that time being Appleford Counter Check Book Company, Limited. In the last few years they have branched out into many other lines of paper products such as—waxed paper for bread wrapping, confectionery wrapping, meat wrapping and for household use, butter wrappers and other parchment wrappers for fish, meat, etc., milk bottle caps and printed gummed tape.

The Paper Industry in Japan

The manufacture of paper is one of the most progressive and prosperous of Japanese industries, writes James A. Langley, commercial secretary of the Canadian Legation at Tokyo. In most cases mills with ample working capital have been able to install the latest labor-saving devices, and the plants on the whole are well equipped with modern machinery and are efficiently managed. European-style paper produced in Japan enjoys a very good export trade, and with the exception of certain special varieties for which the Japanese demand is not large enough to warrant the installation of special equipment in the mills, this territory has been kept free from appreciable foreign invasion. The greatest improvement in manufacturing processes has taken place in the production of heavy wrapping papers. This class of paper is being produced in considerable quantities in mills located in Saghalien, and as a consequence a certain amount of export business is being developed, while imports of foreign papers have shown a slight decrease.

Production of foreign-style paper by mills that are members of the Japan Paper Manufacturers' Association totalled 1,151,515,013 pounds in 1927, rising to 1,305,754,720 pounds in 1928. The exact figures of the output of the mills that are connected with the association are not available, but 50,000,000 pounds is the estimate of the trade. Sales of foreign-style paper rose from 1,131,568,527 pounds in 1927 to 1,292,597,670 pounds in 1928, and during the first ten months of 1929 sales totalled 1,138,118,242 pounds.

It was not until 1913 that the production of wood pulp in Japan showed any particular development, when a tonnage of 76,000 tons was recorded, but from then on until 1920 the industry has shown a steady advance. In that year there were seventeen companies with thirty-one mills producing pulp, with an output of 268,000 tons. Owing to the general trade depression during 1921, and to the destruction of mills by fire, the number of plants were reduced to twenty-eight, controlled by thirteen companies and producing 250,000 tons of pulp, or a decrease of 7 per cent. Subsequently, new plants have been established and those already in existence enlarged so that in 1928 the output reached a total of 567,529 tons as compared with 536,390 tons in 1927 and 500,301 tons in 1926. It is anticipated that the production of pulp during 1929 will reach at least 636,416 tons, which quantity is amply provided for by increases in equipment during the present year.

Duty on High Grade Mould Made Paper

After a prolonged discussion between the customs authorities and the experts of the Import Committee of the American Paper Industry, the customs officials have put into effect an important change of practice involving the classification of high grade mould made papers. These papers have long been imported as printing papers, dutiable at ¼ cent per pound and 10 per cent. The customs authorities have now been convinced that these papers, which are made with a deckel edge, are properly dutiable as machine handmade papers, and will henceforth be held for duty as imitation hand made papers at 3 cents per pound and 15 per cent.

The decision secured in the United States Court of Customs and Patent Appeals, under which imports of paper improperly entered as standard news print were classified as printing paper and subject to duty, has resulted in the abandonment of many cases which the importers had carried to the Customs Courts, hoping to secure a favorable decision. This was one of the most important problems undertaken by the Import Committee soon after its organization. Thirty-four cases involving the importation of printing paper containing more than 30 per cent sulphite, in which the importers claimed the paper to be duty free as standard news print have been abandoned by the importers, as a result of the decision by the Appellate court. Much of he paper was intended for a religious publication which was endeavoring to secure entry of foreign paper without paying the duty which the tariff laws provide. Another series of importation of supercalendered paper, also held dutiable as printing paper but claimed to be duty free as standard news print, and some of this also involving religious publications, was abandoned; the importations of this latter type of paper totaled eight, some being of esparto pulp. Most of the paper involved in the above cases was from Scandinavia, though some was from Holland, Scotland and England.

Thirteen importations of envelopes held by the customs officials to be subject to an additional duty of 10 per cent for special finish were scheduled for hearing before the United States Customs Court, but before the cases came to trial the importers decided that the previous decisions on the question of special finish did not offer much chance of success before the Court, and all of the cases were abandoned.

Michigan Traffic Men Elect Officers

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., January 30, 1930.—All officers of the Michigan Paper Mills Traffic Association have been re-elected for the ensuing year. They are: President, Alex G. Gilman; vice-president, F. M. Hodge; treasurer, C. S. Campbell; secretary George S. Davis; manager, J. F. Dougherty.

Plans outlined for the coming year call for monthly luncheon meetings of all members and close cooperation with the traffic department of the Kalamazoo Chamber of Commerce.

Concerns served by this association are Allied Paper Mills, Bryant Paper Company, Hawthorne Paper Company, Kalamazoo Paper Company, Kalamazoo Vegetable Parchment Company, Lee Paper Company, Mac Sin Bar Paper Company, Michigan Paper Company, Otsego Waxed Paper Company, Rex Paper Company, Sutherland Paper Company, Watervliet Paper Company and Western Board and Paper Company.

Boston Paper Market In Satisfactory Position

Distributors of Fine Paper Report Business Conditions Good and Outlook for Current Year Bright—Coarse Paper Market Displays Spotty and Fluctuating Undertone With Prices Weaker—Box Board Demand Has Been Better Than Anticipated

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., January 27, 1930.—A fairly sizable volume of sales of paper has been made during the last week, although in some quarters there has been less activity than at the opening of the year, particularly in fine papers. A number of jobbers of fine papers say that "business is good." Whether a less or greater quantity of paper was sold during the week under review, the outlook continues bright for a good year as a whole. Prices of fine paper remain firm. Varying statements are made in regard to the coarse paper market. In some houses the movement during January has compared favorably with the corresponding month last year. The week has been a little quieter than usual in some quarters, although spotty and fluctuating. The reduction in the price of No. 2 kraft, said to have been made because of overproduction, has brought about more activity in that line. This grade, however, on account of the surplus quantity, is reported to be weaker than at any other time during the last year. No. 2 kraft is now quotable at .03¾ to .05, f.o.b. mill. The box board market is more active and, in fact, has been so since the second week of the current month. Business has been better than anticipated. Material is wanted at prompt shipments and the hand-to-mouth policy prevails. Quotations on filled news board remain at $37.50 to $40 and chip board at $35 to $37.50.

There has been no appreciable movement in old papers. While most values are unquotably changed, the trend, if anything, is downward. The majority of the consumers of paper stock are said to be disappointed in the small amount of business which has developed. Manufacturers had expected a considerable influx of orders. Considerable interest has been displayed in gunny bagging contracts. An important one has been placed for No. 1 foreign gunny bagging at 1.40 to 1.55. There is a slight improvement in rags.

The twine market continues strong in both hard and soft fibers. Cotton twine is at practically the same levels, although there is a slight tendency towards lower prices.

Hollingsworth Basic Bond

Hollingsworth Basic Bond, a new name or a combination of former names, has an interesting history. Some ten years ago, the Whitaker Paper Company developed a paper called Basic Bond, made by Hollingsworth & Whitney Co. Later the Hollingsworth & Whitney Company issued a mill brand, popularly called Hollingsworth Bond, but the same paper as Basic Bond. These papers are water-marked. The Basic Bond was sold only by members of the Whitaker chain. There were also special agents for the Hollingsworth Bond. During the last ten years both brands have grown in popularity, so that beginning February 1, the paper will carry the mark of Hollingsworth Basic Bond. Distribution will be made through the present Hollingsworth Bond agents and also the chain of Whitaker Paper Co. houses.

Stimpson & Co. To Handle Handy Wacks

Stimpson & Co., Inc., have taken on the distribution of Handy Wacks, a package of 50 sheets of silver, white, extra strong wax tissue, for household and luncheon purposes. The package can be conveniently hung up in a kitchen and the sheets easily pulled out. This product is made by the Handy Wacks Corporation, Grand Rapids, Mich. The concern, which began business with one machine, is now in its fourth year and has just bought the fourth machine.

Stimpson & Co., Inc., are to be agents for Maxwell Bond, made by the Maxwell Paper Company, Franklin, Ohio, a subsidiary of the Howard Paper Company, Urbana, Ohio.

A New Groveton Paper

A new line of the Groveton Paper Company, Inc., Groveton, N. H., which has a Boston office, is 1930 Index. This paper, made in white only, is a strong, snappy index with proper writing and typing qualities. Its substance weight is 110, 140 on 25½x30½. It is also stocked in 20½x24¾ and 22½x28½. Another new line made by the same company is Groveton Colored Bristol, a strong utility Bristol suitable for letter folders, filing systems, post cards in colors, time tables, placards, colored tags, mailing, folding and index. It is carried in stock in weights 125 and 150 in the following named sizes: 24x36, 24x40, and 22½x28½. The product is made in six colors: blue, salmon, canary, green, red and pink. Swatches bearing dealers imprints are being printed in Boston.

Notes of the Trade

The Climax Manufacturing Company, of Castorland, N. Y., has added to their lines Arbro Colored Wrapping Papers. They are covering dry goods boxes with this paper which may be used for merchandise, notion and millinery bags and boxes to match. Carter, Rice & Co. Corp. is furnishing the whole line.

A Hammermill meeting was held at the office of Storrs & Bement Co. Friday at six p.m. Mr. Bothwell and Roger Taft, of the sales department of the Hammermill Paper Company, Erie, Pa., gave talks.

George McCarthy, who has been in charge of the Boston office of the American Writing Paper Company, is ill at the Hotel Touraine. He will remain there until he is able to leave Boston. E. H. Sussenguth is taking Mr. McCarthy's place during his absence.

Howard Casey, who has covered this territory for the Hampshire Paper Co., Inc., South Hadley Falls, is on leave of absence in order to recuperate from ill health.

Peerless Paper Mills Have Good Year

OAKS, Pa., January 27, 1930.—The stockholders meeting of the Peerless Paper Mills was held on Monday, January 13, at the offices of the company at Oaks.

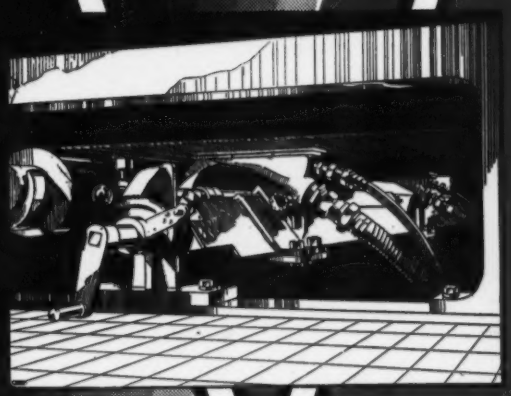
After presentation by the president, Lewis I. Rossiter, of the annual financial statement for the year of 1929, which showed a very satisfactory increase in business, the following directors were re-elected for the year of 1930: Lewis I Rossiter, Albert P. Wilson, I. J. Sheppard, Nelson Easton and Irvin H. Campbell, esq.

At the meeting of the directors held immediately after the stockholders meeting the regular quarterly dividend was declared and authorized to be paid on January 15.

This company has marketed during the past year two new products, a new high grade colored toilet paper in five different tints and a wonderfully efficient and superior paper towel.

Tinted or colored bath room paper is widely used in the modern home to blend with the new tinted bath room fixture. Early in the year special equipment was installed to care for this new item, which is now enjoying a wide distribution.

Mr. Rossiter, president and general manager, states that the outlook for business in their varied lines of sanitary papers is very encouraging and that with the new lines and additional equipment 1930 bids fair to exceed any previous year since this company has been engaged in the manufacture of toilet papers and paper towels.



THE VICKERY FELT CONDITIONER

The Vickery Felt Conditioner
gives you
GREATER PRODUCTION
LONGER FELT LIFE
MORE UNIFORM DRYING
BETTER PAPER FINISH

Try a Vickery Felt Conditioner in your own mill, at our expense

Try a Vickery Felt Conditioner

BIRD MACHINE COMPANY
South Walpole · Massachusetts

3662

Ontario Paper Mills Running Near Capacity

Demand for Standard Grades of Fine Paper Is Persistent, Especially for Bonds, Ledgers, and Book Stock—Coarse Paper Market Only Moderately Active, With Light Request for Wrappings and Bags—Paper Stock Situation Gradually Improving

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., January 27, 1930.—Although generally speaking paper lines in the wholesale paper field are moving rather slowly, as was to be expected at this season of the year, the manufacturing end is quite active. Practically all of the fine paper mills are running close to capacity and report a good demand for most lines, especially book paper which had dropped off towards the end of the old year. Mills now report substantial orders ahead for book whereas a few weeks ago they had overtaken orders for future delivery and were scurrying for tonnage. This condition appears to be over now and it looks like a good season for all fine paper lines, such as bonds, ledgers and book stock.

The coarse paper trade is not as active as it might be and there is a comparatively light call for wrappings and paper bags. This, however, is seasonal and the trade throughout Ontario in coarse paper sales is no worse than it has been at other similar periods of previous years. There has been little slackening in the demand for kraft papers, the call for this line keeping up well both in the domestic and export markets.

The paper converting trade is only moderately busy and while the envelope manufacturers had a good year in 1929 the new year has opened up rather slowly. Blank book lines are also moving slowly and the same may be said of manufactured stationery lines generally. Light weight paper mills are operating close to capacity and report a good demand for all light weight lines, such as tissues, toilets, paper towels, napkins and specialty lines. This appears to be about the steadiest of the paper groups, despite the fact that Canadian manufacturers have been up against considerable competition from outside sources who have been using the Canadian market for dumping purposes from time to time.

There is a good demand for rag and paper stock by the paper mills although the recent inclement weather has interfered to some extent with collections and supplies. Although no stock is being imported at the present time, dealers say that it looks as if supplies would have to be brought in from the outside soon if the present demand and supply kept up. It is figured that the collectors are getting fully ten per cent more waste paper from the large stores than was forthcoming at this time last year.

Hammermill to Invade Ontario

Although no particulars are available it is known that a subsidiary of the Hammermill Paper Company is contemplating the establishment of a plant at Welland, Ont., in the Niagara Peninsula, which is the home of the Ontario paper industry. It is known that negotiations are under way between the company and the city for the acquisition of a block of land seventy acres in extent, with a frontage of over 1,000 feet on the Welland Canal, and it is expected that announcement will be made soon as to the company's plans.

Weston Man Buys Timber Limits

Government timber in the north part of Bristol township, in the Porcupine district of Ontario, has been sold to H. H. Rudolph, of Weston, timber and pulpwood dealer, it was announced this week at the office of the Ontario Minister of Lands and Forests in Toronto. Slightly less than a million feet of large timber and 9,000 cords of pulpwood were sold. A price of $9.25 per 1,000 feet was obtained for jack pine, $11.05 for spruce, and $2.40 a cord for spruce pulpwood. The jack pine and spruce will be used by the successful tenderer for mining purposes and for news print. The market for mine timber is in the Timmins section and that for the pulpwood in Smooth Rock Falls. The sale of this timber will result in employment of additional men in the Timmins area, it was pointed out by the Deputy Minister.

Paper Company Director Passes

After two days illness from heart trouble the death occurred in Toronto a few days ago of Thomas Watson Sime at the age of 69 years. Deceased was a chartered accountant and actuary, a partner in the firm of Stiff Brothers and Sime, and a former president of the Ontario Institute of Chartered Accountants. Born in Edinburgh, Scotland, where he formerly practised, he came to Toronto in 1905. It was not long after his arrival in Canada that he joined the firm with which his name was connected. He was a director of several financial and industrial organizations, including the Abitibi Power and Paper Company, and the Spanish River Pulp and Paper Mills, Ltd. He was prominent in business, club and fraternal circles in Toronto. A wife and two sons survive.

Notes and Jottings of the Trade

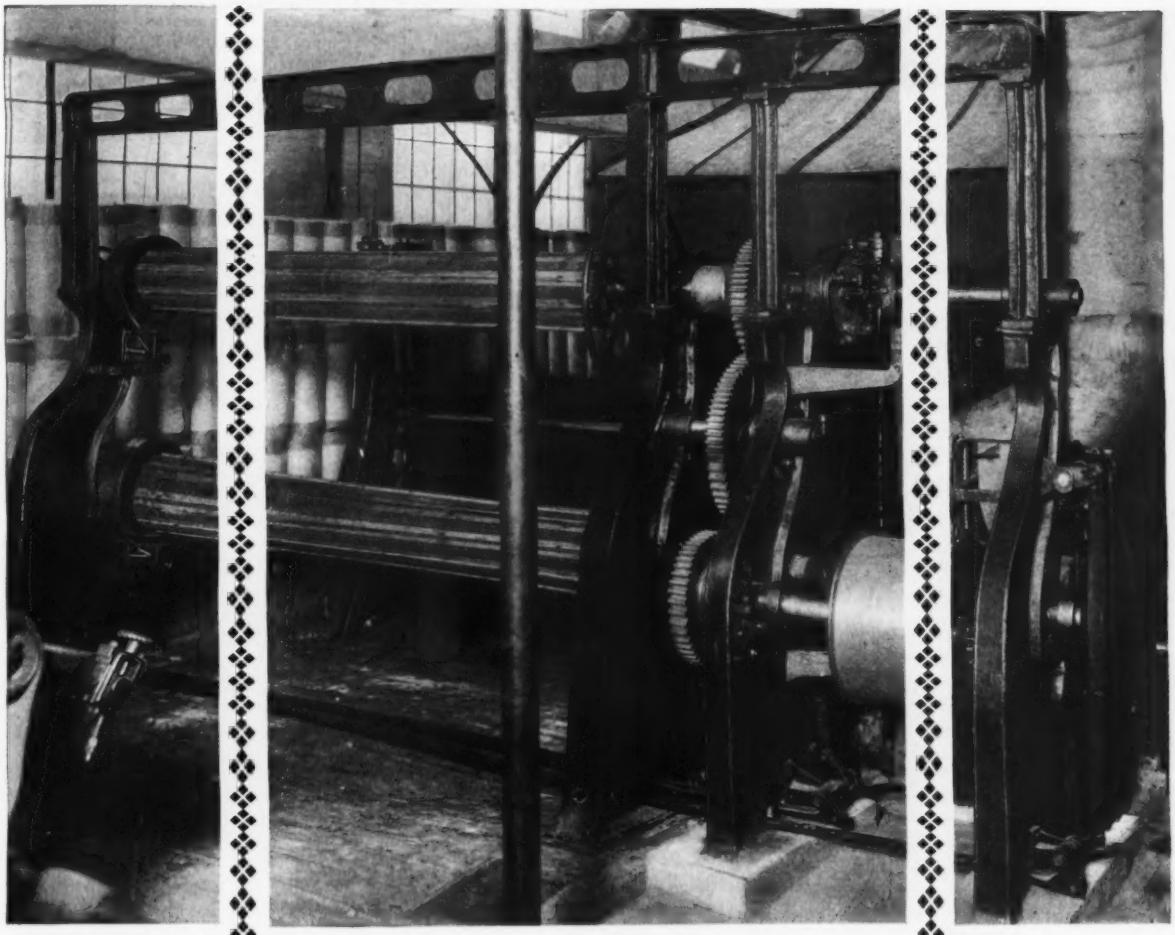
The annual report of the Corrugated Paper Box Company, Ltd., Toronto, for the past year, shows that a large increase in production and sales featured the business. Savings in operations have been effected through increased production and convenient manufacturing facilities available at the new plant at Leaside. It is not expected that the net profits will reflect this wider business, as the close price situation for part of the year cut profits of all competing companies. The difficulties surrounding the price situation are reported to have been largely overcome and with increased sales and new plant the management looks forward to 1930 as a year in which profits should show a substantial increase.

Reproduced as a copy of an original wood-block print in water color inks on Bard of Avon Canadian-made paper, the Fred W. Halls Paper Company, Ltd., Toronto, have mailed to customers a very fine New Years greeting in the form of the well known picture "Where the Flyin' Fishes Play." It is an excellent demonstration of the printing surface of the paper and of the artistic use of inks in color work.

The Hon. William Finlayson, Ontario Minister of Lands and Forests, Toronto, has given notice that at the forthcoming session of the Ontario Legislature, legislation will be introduced which will give his department authority to close sections in Northern Ontario to tourist traffic and prospecting activities whenever the bush fire hazard renders such action imperative. Another departmental move toward minimizing timber and pulpwood loss next summer will be the erection this winter of 25 steel observation towers. A number will be constructed in the northwest corner of Ontario, but the majority will be built to link up the tower system in the Cochrane district.

The Manitoba Paper Company at Winnipeg is still waiting for action on its request for more pulpwood limits. After surveys of the limits previously mapped out for the company, it was found that there was a considerable shortage in the wood that was required by the company. In the meantime the Manitoba Government and the Dominion Government are working on the return of the natural resources to the province and no action has been taken with regard to granting further limits to the paper company.

The many friends in the paper trade of George W. Pauline, of the Alliance Paper Mills, Ltd., Toronto office, will sympathize with him in the death of his mother, Mrs. Hamilton, which took place a few days ago.



VARIOUS TYPES

Our Upright Reels are built with various types of drums, frictions and drives to meet every requirement of the modern paper mill. . . . . Details are contained in our new Catalog Bulletin 107, which also describes other types of Reels built by us. . . . . Write for it today, and let us bid on your requirements when you are in the market for any kind of Reel.

DOWNINGTOWN MFG. CO.
DOWNINGTOWN, PA., U. S. A.

Obituary

David Stoddard Walton

The death is announced at Llewellyn Park, West Orange, N. J., on January 25 of Davis S. Walton, in the 88th year of his age.

Mr. Walton was the senior partner in the firm of D. S. Walton & Co., and although he had not been active in the firm in recent years, he retained his interest in the concern which he founded over fifty years ago.

Well known in insurance circles, Mr. Walton served as director in several companies. He was a member of the New York Chamber of Commerce, and for many years resided in East Orange where he was a member of the City Sinking Fund, and a Director of the Free Public Library.

Upon the formation of the National Folding Box Company of New Haven, Mr. Walton was elected president and continued in that office for over twenty five years, then becoming chairman of the board of directors.

Mr. Walton's interest in religious and charitable work was also well known. He was a member of Hope Lodge, F. & A. M. of East Orange. His house in East Orange was taken over by the Baptist Seminary and he then acquired a house site in Llewellyn Park, where his wife and family now reside.

Surviving him, besides Mrs. Walton, are three sons, David S. Walton, Jr., treasurer of the National Folding Box Company of New Haven; Harold L. Walton and Rudolph L. Walton, and two daughters, Miss Edith S. Walton, and Mrs. Ralph B. Pomeroy.

Walter B. McIlvain

PHILADELPHIA, Pa., January 26, 1930.—Walter B. McIlvain, aged 45, of Downingtown, Pa., a widely known business man of Chester County, died January 22 in the University Hospital, where he went five days before for an operation. He was president of the J. Gibson McIlvain Lumber Company, the Downingtown Paper Box Company and the Croft Lumber Company, of West Virginia; also vice president of the Downingtown Paper Company.

Mr. McIlvain, born in Downingtown, son of the late J. Gibson McIlvain, was an alumnus of Princeton University. He was president of the Downingtown Welfare Association and a member of the Union League and several fox hunting clubs.

He is survived by his wife, Mrs. Alida Baird McIlvain; four sons; a daughter, Miss Fanny McIlvain; a brother, J. Gibson McIlvain, and a sister, Mrs. Maurice Osteimer. Funeral services were held at St. James' Protestant Episcopal Church, Downingtown.

Michael P. O'Neill

PHILADELPHIA, Pa., January 26, 1930.—Michael P. O'Neill for the past fifty years connected with the Philadelphia waste trade as wholesale dealer in paper stocks and woolen rags, passed away at his home 409 South 9th street, last week from pneumonia, aggravated by an attack of heart trouble. He was 73 years of age and had been linked with the paper stock firm of Patrick O'Neill & Co., 408-10 South 6th street, for more than fifty years and was at the time of his passing head of that concern, which dates back sixty years or more. Surviving him are three sons, who are members of the firm and two daughters. The sons are John F. O'Neill, and his brothers Joseph F., and James O'Neill. Solemn requiem Mass was celebrated for the deceased on Saturday morning at Old St. Mary's Church 4th and Spruce streets, with interment in Holy Cross Cemetery.

Merwyn R. Hatch to be General Manager

BALTIMORE, Ohio, January 27, 1930.—The Fairfield Paper Company has announced the appointment of Merwyn R. Hatch as general manager of its board mill at this place. The appointment was effective January 1.

Some Improvement in Indianapolis

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., January 27, 1930.—While there has been some improvement in the local paper trade since the first of the year, business has not attained its full volume following the holiday period. Most of the local houses say their salesmen are making some optimistic reports concerning future business, but so far actual orders are not all that might be desired.

The question of roofing and building papers is beginning to agitate the builders of the state. At the convention last week of the Retail Lumber Dealers Association the question of discounts on such papers brought out a lot of discussion. The smaller dealers were irate over the fact that they could not get nearly the discounts the large chain yard dealers could get when buying in several carlots. There seemed to be little help for the matter, however, and it is likely the same schedule of discounts will prevail for another year.

Demand for fine papers is very dull at the present time. In some quarters it is reported that this demand is the slowest for some time. Stocks in local warehouses are not large, however, and the jobbers do not seem much worried.

Salesmen for glassine and wax papers are more optimistic than they have been since the first of the year. One salesman for the Ohio Wax Paper Company was in the city Saturday, having made an extensive trip through Illinois. He declared that while this was but the beginning of increasing business for his company, which specializes in paper for bakeries, there was a very good tone to the business throughout his territory.

Brotherhood Activities

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., January 20, 1930.—The annual session of the executive board of the International Brotherhood of Papermakers was concluded here last week and the members have all returned to their homes. It was learned that no definite action had been taken on a number of important matters including a program of organization to increase membership. This will be left until the conference at Montreal in March in order that all locals may be given an opportunity to express themselves through their delegates. It was also announced that nothing definite had been decided toward an investigation of the campaign conducted by the three candidates for the presidency. In naming a committee, however, to investigate alleged election frauds in several Canadian locals it was said that the investigation might easily include more than one candidate. This committee will organize early next week prior to visiting Canadian locals to ascertain if any irregularities took place.

Whether paper manufactured at Potsdam, N. Y., Holyoke, Mass., and Taylorville, Ill., bearing the watermark of the Papermakers' Organization, has been marketed in such a way as to violate the Sherman anti-trust law will be threshed out in this city before Federal Judge Bryant late in January. The Alden Paper Company, of Holyoke, has also been named as a co-defendant and it is expected that Edward Alden will attend the trial. An effort made to ascertain the amount of Union watermarked paper marketed during the past year was unsuccessful, officials claiming that they did not know just how much had been made and how much had been sold. It is claimed by the government that the labor leaders and the Alden Paper Company formed a combination in restraint of trade in the making of watermarked paper which bore the union label.

Resign from Johnson Paper Co.

[FROM OUR REGULAR CORRESPONDENT]

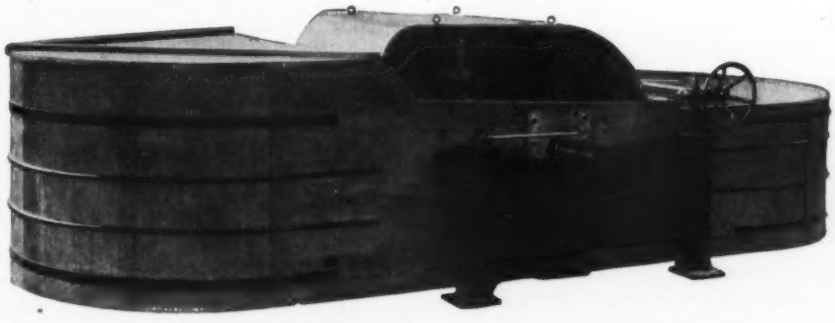
KALAMAZOO, Mich., January 27, 1930.—G. W. Stannard and C. E. Hathaway, for several years on the sales staff of the Johnson Paper and Supply Company, Kalamazoo, have resigned their positions to take similar posts with the Star Paper Company, also of Kalamazoo. Mr. Stannard was 21 years with the Johnson concern and Mr. Hathaway 16 years.

An Emerson High Density, High Speed Beater in the mill of a nationally known maker of bonds and cover stock. Built to handle 1800 lbs., a 2500 lb. load was running in the beater when the picture was taken.

3 old style beaters, each handling 1200 lbs. at 3% density, took 180 H.P. 3 Emerson High Density, High Speed Beaters shown above, each handling 1850 lbs. of the same stock at 7% density, use 170 H.P., *effect a 50% power saving over the old beater room.*

Let Emerson modernize your beater room

Emerson engineering and beater design have kept abreast of papermaking . . . High density, high speed beaters reduce beating time, save power, handle heavy loads without trouble . . . Emerson beaters built to meet *specific* mill requirements lower beater room costs, maintain quality and uniformity, give steady, dependable service . . . New mills are completely equipping their beater rooms with modern Emerson beaters, others are installing them to replace obsolete equipment, bringing their plants up to date. . . . Ask us to show what they can do for you.



10 low cost Emerson High Density, High Speed Beaters, similar to the one above, are operating in a mill making high grade papers. Name on request.

The Emerson Manufacturing Company

Lawrence • • • Massachusetts

Division of John W. Bolton & Sons, Inc.

3477

Trade Mark Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade Mark Company, 900 F Street, N. W., Washington, D. C., trademark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering.

FIBEX. Ser. No. 275,479. Central Fibre Company, Inc., South Gardner, Maine. For fibre flowerpots, fibre milk and cream bottles.

NUJOL. Ser. No. 280,138. Stanco, Inc., Wilmington, Delaware. For cartons.

COURIER KRAFT, and picture of two men in canoe. Ser. No. 282,823. The Northwest Paper Company, Cloquet, Minn. For wrapping paper, envelope paper and paper board lining.

TEXTILOSE. Ser. No. 286,044. The English Textilose Manufacturing Company, Ltd., Manchester, England. For bags and sacks of cellulose fibre.

NO-TARE, and picture of two men pulling on rope, and design. Ser. No. 286,877. Gilman Paper Company, New York, N. Y. For paper bags.

R. T. R. Ser. No. 290,90[illegible] Rice, Trew & Rice Company, Inc., Biglerville, Pa. For paper liners for baskets.

GUM GARAGE. Ser. No. 290,995. Annie Chandler, Toledo, Ohio. For paper wrappers for waste material.

NU-STAR. Ser. No. 277,537. Fort Howard Paper Company, Green Bay, Wisconsin. For paper napkins, paper doilies, paper tablecloths, paper towels.

GUILD-SET TILING, and picture of man setting in tile. Ser. No. 289,134. For letterheads.

CIRCUIT. Ser. No. 291,000. Empire Paper Company, Chicago, Ill. For bond, ledger and writing papers.

REAPER. SER. No. 291,001. Empire Paper Company, Chicago, Ill. For bond, ledger and writing papers.

CANCO LEAKTITE. Ser. No. 279,256.—American Can Company, New York, N. Y. For cans.

PINCO. Ser. No. 281,789.—Pinco Papers, Inc., Camden, N. J. For decorative papers, particularly wrapping paper and decorative covering paper.

POLARBOX, and picture of polar bear. Ser. No. 282,115.—Iowa Fiber Box Company, Keokuk, Iowa. For shipping containers.

SALPA. Ser. No. 285,831.—Societa Invenzioni Brevetti Anonima-Torino. Turin, Italy. For boxes, cases, drink shakers, thermos bottles, jugs, etc., etc.

DR. WARREN, and picture of a man, and design. Ser. No. 289,-431, Wyoming Valley Paper Mill. Northumberland, N. H., and New York City. For toilet paper.

OLD HOMESTEAD, and picture of a house and scenery. Ser. No. 289,432. Wyoming Valley Paper Mill, Northumberland, N. H., and New York City. For toilet paper.

SALPA, and design. Ser. No. 285,832. Societa Invenzioni Brevetti Anonima Torino, Turin, Italy. For boxes, cases, drink shakers, thermos bottles, jugs, etc.

NATIONAL, with picture of map of the United States. Ser. No. 290,588. The Natl. Drying Machinery Company, Philadelphia, Pennsylvania. For cloth-drying machines and drying machines for pulp paper, yarn.

L'ENVOI—Ser. No. 287,262. Parsons Paper Company, Holyoke, Mass. For writing and printing papers.

BATH-TEX—Ser. No. 290,833. Joel S. Hartman, New York, N. Y. For toilet tissue.

CAMEO—Ser. No. 291,040. Waxed Products Company, Inc., Brooklyn, N. Y. For waxed paper.

CAMP AND CAMPUS BUREAU—Ser. No. 288,670. Stern Brothers, New York, N. Y. For letter heads, correspondence cards and stationery.

REDIFORM—Ser. No. 255,586. American Sales Book Company, Ltd., Toronto, Canada, and Elmira and Niagara Falls, N. Y. For paper record sheets, etc.

OLD FORT BOND, and picture—Ser. No. 286,755. Fort Dearborn Lithograph Company, Chicago, Ill. For bond paper.

DUPONT CELLOPHANE, in oval—Ser. No. 290,308. DuPont Cellophane Company, Inc., New York City. For moistureproof cellulose sheets.

WARREN-TEED—Ser. No. 290,637. The Warren Manufacturing Company, Riegelsville, N. J., and New York City. For wrapping paper, waxed sulfite and glassine paper and industrial papers.

L'AIGLON—Ser. No. 291,948. American Writing Paper Company, Inc., Holyoke, Mass. For writing and printing paper.

FUJIYAMA—Ser. No. 291,949. American Writing Paper Company, Inc., Holyoke, Mass. For writing and printing paper.

TAMBOURINE—Ser. No. 291,950. American Writing Paper Company, Inc., Holyoke, Mass. For writing and printing paper.

CALABASH—Ser. No. 291,952. American Writing Paper Company, Inc., Holyoke, Mass. For writing and printing paper.

CASSANDRA—Ser. No. 291,953. American Writing Paper Company, Inc., Holyoke, Mass. For writing & printing paper.

APOLLO—Ser. No. 292,245. Apollo Paper Corp., New York City. For bond paper.

WADRY—Ser. No. 292,290. Schmidt & Ault Paper Company, York, Pa. For paper lining for corrugated paper.

COLORFOLD—Ser. No. 292,327. The Martin Cantine Company, Saugerties, N. Y. For dull-finished paper suitable for use with water-color inks and for cover stock.

BONSTOC—Ser. No. 292,430. Harry S. Wittner, doing business as H. S. Wittner, New York City. For bookkeeping record forms.

KNICO—Ser. No. 292,734. Knight Brothers Paper Company, Jacksonville, Fla. For bond, mimeograph, book, writing and toilet paper.

KNICO, K on shield, and man on horse.—Ser. No. 292,735. Knight Brothers Paper Company, Jacksonville, Fla. For bond, mimeograph, book, writing and toilet paper.

Reforestation Activities in New York

ALBANY, N. Y., January 20, 1930.—Reforestation activities for the year 1930 as foreshadowed by orders already on file in the offices of the Conservation Department indicate greater activity than has ever before been attained in this country. Exclusive of state and county forest projects over 200 orders were on file early in January calling for over 2,000,000 trees. Among the larger orders from individual land owners is one from Augusta Richards for planting in Oneida County 200,000 trees and another from Assemblyman Maurice Whitney for planting in Rensselaer County 100,000 trees.

Orders from municipalities already received include one from the city of Little Falls for its city watershed forest in Herkimer County calling for 200,000 trees. The Westchester County Park Commission has also placed an order for 125,000 trees. With the 1930 spring planting season still three months away the rate at which orders are coming in indicate that planting by private individuals and municipalities is going to be heavy. It is too early yet to be able to state definitely what the requirements in the way of trees for planting the new state forest areas under the Hewitt law will amount to but indications are that they will amount to at least 10,000,000 trees and several million more will be needed in county forest projects. Requirements for these are practically all in and are now being compiled.

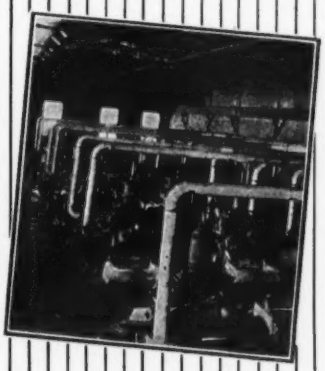
May Build Paper Mill at Kalama

PORTLAND, Ore., January 11, 1930.—Several reports persist that a new pulp or paper mill of some kind will be established at Kalama, Wash., due to some property transactions of recent date, but no definite statement of names of those interested has been made. George N. Campbell, banker of Kalama, who made the purchase of a site has declined to make a statement.

Regular Equipment in the Modern and the Modernized Mills!

Above—Briner Economizer for utilizing the heat from waste vapor.

Below—Ross Grinder Exhaust System removing vapor from grinders.



DURING the past few years, exceptional progress has been made by the paper industry in the utilization of waste heat. As a result, thousands of dollars annually are being lopped from operating costs. Savings through the reclamation of heat from the waste vapor are providing the necessary increased margins to insure production that is profitable.

Among the many Ross Systems that are so largely contributing to this progress in the utilization of waste heat, the Ross Briner Economizer and Ross Grinder Exhaust System are conspicuously prominent. They have become regular equipment in those mills that seek to benefit from the advantage of the lower operating costs that they assure.

These systems accomplish not only the full utilization of waste heat, but improve production and operating conditions. Installations are proving paying investments. Operating cost records consistently prove that it costs more to be without them than to install them.

Bulletins Describing These Ross Systems Will Be Promptly Sent To You Upon Request.

J. O. ROSS ENGINEERING CORPORATION

208 W. Washington Street
CHICAGO

Main Office—122 East 42nd Street
NEW YORK

519 American Bank Bldg.
PORTLAND, ORE.

ROSS ENGINEERING OF CANADA, LIMITED

NEW BIRKS BLDG., MONTREAL

ROSS SYSTEMS

HEATING—VENTILATING—DRYING

February Cost Convention

An interesting program has been arranged for the 24th Semi-Annual Convention to be held by the Cost Association of the Paper Industry, at the Pennsylvania Hotel, in New York City, (Parlor 2), on Tuesday and Wednesday, February 18 and 19. The usual Luncheon Meeting for Executives will be held at 12:30 P. M., on Wednesday February 19, with Col. B. A. Franklin, vice-president of the Strathmore Paper Company, in the chair.

The subject, "The Outlook for General Business and for the Pulp and Paper Industry in 1930," will be discussed by Dr. Ely O. Merchant, who has been a regular speaker at cost Luncheon Meetings for Executives, for the past three or four years.

It will be seen that he has had a long and thorough acquaintance with the Pulp and Paper Industry, so that his address on "The Outlook for General Business and for the Pulp and Paper Industry in 1930," will represent the viewpoint of a man thoroughly acquainted with his subject.

The other speaker at this Luncheon Meeting will be A. W. Ramsdell, who is associated with Batten, Barton, Furstine & Osborn, Inc., advertising agents in New York City. Mr. Ramsdell's subject will be "Putting Profits Into Paper." He has had considerable accounting experience, having developed the Burrows Simplified Accounting Plan, for the Burrows Adding Machine Company, by whom he was employed for seven and a half years. He next located in Detroit, where he was associated with Campbell Ewald, advertising agent, whom he left after four years, to take his present position. During the four years he has been in his present position, he has had considerable experience in marketing research, and in developing statistical data for advertising purposes. He has considerable knowledge of the paper industry, and is well qualified to speak on the subject selected.

Standard Costs

Among the speakers in the general sessions will be Eric A. Camman, C.P.A., partner of Marwick, Mitchell & Co., New York City, who will speak on "Standard Costs, What They Are and How to Use Them."

Mr. Camman is a member of the American Institute of Accountants, of the New York State Society of Certified Public Accountants, of the National Association of Cost Accountants, and is an associate member of the American Society of Mechanical Engineers. He has been one of the leading advocates in the United States of the use of standard costs and has made numerous addresses on this subject before various accounting societies, also has contributed much to the literature of accountancy on "standard costs."

Earl B. Morgan, Consulting Engineer of Philadelphia, will speak on Personnel Problems in Management. Mr. Morgan has had considerable experience in this work, and has been highly spoken of as a speaker on the subject.

Mr. George S. May, Industrial Engineer of Chicago and New York, will speak on "Bonuses and Their Uses to Decrease Costs and Increase Profits." Mr. May's work has been favorably commented on by several paper mills, for whom he has worked, and we believe that he will bring a real message to our members.

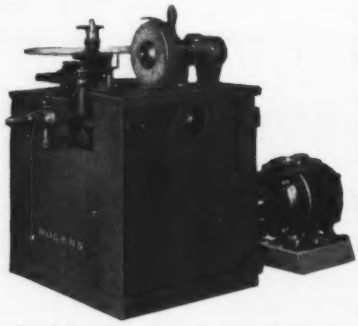
Prentice B. Reed, who is the author of a book on "Fire Insurance and the Accountant," will speak on the importance of making careful examination of fire insurance policies, and the action that should be taken by the accountant, in the event of fire losses taking place, in order that the insured may be in a position to take full advantage of the coverage secured by his policies.

This is an important subject, in view of the large losses which frequently take place in pulp and paper mills, where many highly inflammable materials are stored.

Reservations for rooms should be sent to the Pennsylvania Hotel as early as possible, as there will undoubtedly be a large demand for accommodations during "Paper Week." Rebates can be obtained by using special R. R. Certificates, copies of which can be obtained on application to the Secretary-Treasurer, Thomas J. Burke, 18 East 41st Street, New York City, who will also be pleased to supply any further information required about the Convention.

New Rogers Automatic Sharpener

Samuel C. Rogers & Co., Buffalo, N. Y., has just placed on the market a new full automatic circular cross cut and rip saw sharpener.



This machine known as No. 4, is of extremely simple construction. It embodies five new features: 1. SKF Ball Bearing grinding wheel spindle; 2. Metal Cabinet, enclosing all working parts; 3. Automatic jointing device for keeping saw teeth in perfect alignment and the saw round and true; 4. Positive adjustments for maintaining the same degree of bevel the entire length of grinding; 5. Full Automatic for cross cut saws with bevel faced teeth up to 40° bevel as well as for rip saws.

The main frame, pulleys, chuck, etc. are of special mixture of steel and iron. The cabinet is of heavy sheet metal. All cams, gears and wearing parts are hardened. The grinding wheel spindle is mounted on ball bearings. In the housing adjacent to the grinding wheel a deep groove heavy duty spindle bearing is used which eliminates end play. In other housing a self aligning deep groove bearing is used which automatically compensates for any slight misalignment.

Its capacity is for saws from 3 to 30 inches in diameter, with teeth from 10 points to the inch up to 2¼ inches teeth spacing. The grinding speed is at the rate of from 30 to 40 teeth per minute depending on the size of teeth. Once started, no further attention is required. It can also be operated as a hand machine.

It can be furnished for belt drive with tight and loose pulleys or with 1/3 hp. single phase motor to operate from lamp socket of light current. Three 6 inches diameter saw gumming wheels are furnished with each machine. Floor space 29x20 inches and 30 inches high. Shipping weight 300 pounds.

In bringing out this new grinder the Rogers company is giving to its customers and friends the benefit of its long and successful experience of nearly 50 years in building automatic knife and saw grinders.

Sutherland Paper Co. Makes Report

Kalamazoo, Mich., January 27, 1930.—Net income of the Sutherland Paper Company for the year ended December 31, 1929, after all charges including depreciation and federal taxes was $388,428. This was equal to $1.29 a share for the 300,000 shares of common outstanding, as compared with $478,944 or $1.59 a share, for 1928. The comparative figures include earnings of the Standard Paper Company, which was acquired in August, 1928.

Current assets as of December 31 totaled $1,421,705 against quick payables of $299,557 or a ratio of about 4.71 to 1. Total assets are placed at $3,854,184. Capital stock and surplus is fixed at $3,554,627.

Directors of the Sutherland Paper Company at a meeting held last week voted to go on a quarterly dividend basis of 22½ cents a share, as against 30 cents quarterly the past year. President L. W. Sutherland stated this reduction is a temporary precautionary measure and likely to be discontinued. President Sutherland declares that 1929 was one of the most highly competitive in the history of the business. Sales exceeded 1928 by over 12 percent.

Keep A Constant Check On Quality

Experiment and Research is not the only advantage of Valley Laboratory Equipment.

It also provides the means for daily production control — for frequent testing to maintain uniform quality throughout the entire day's run — and to verify quality on repeat runs.

Present installations of Valley Laboratory Equipment are demonstrating that laboratory tests are comparable to actual mill runs—and also the fact that a well directed laboratory will pay any mill a *good* profit.

Write the Valley Iron Works Co., Appleton, Wisconsin, for further information.

Beater
Sheet Mould
Hydraulic Press
Hot Plate

Couch Roll
Flat Screen
Size Tester
Drying Oven

VALLEY

Equipment for Paper and Pulp Mills

New York Office: 350 Madison Ave.
Western Manufacturing & Sales Division: Smith & Valley Iron Works Co., Portland, Oregon
Canadian Representatives: Pulp & Paper Mill Accessories, Ltd., Montreal, Canada

Box Board Production in November

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 7, 1930—November production of box board, based on reports to the Department of Commerce by 97 firms operating 124 plants (reports for earlier months including five concerns now out of business) was 80.4 per cent of capacity, as compared with 82.9 per cent in October, and 83.4 per cent in November, 1928. In the following table the capacity data vary according to the normal number of working days in each month:

Year and Month	Operation			Production			New Orders	Unfilled Orders (end of month)
	Inch hours		Per cent of	Short Tons		Per cent of		
	Capacity	Operated	Capacity	Capacity	Output	Capacity	Short Tons	
1928								
Jan.	10,372,900	7,833,458	75.5	273,125	203,882	74.6	204,128	80,417
Feb.	10,372,900	8,136,737	78.4	273,125	211,862	77.6	215,333	85,862
March	11,312,244	8,843,542	78.2	297,108	227,344	76.5	244,871	93,380
April	10,474,300	8,311,710	79.4	275,100	221,079	80.4	211,304	84,513
May	10,893,272	8,733,965	80.2	286,104	242,394	84.7	224,366	73,157
June	10,893,272	8,199,515	75.3	286,104	228,646	79.9	228,252	77,782
July	10,474,300	7,992,170	76.3	275,100	201,153	73.1	209,976	79,492
Aug.	11,312,244	9,236,068	81.6	297,108	230,750	77.7	236,682	81,816
Sept.	10,055,328	8,344,464	83.0	264,096	224,971	85.2	234,449	87,097
Oct.	11,384,820	9,430,136	82.8	299,052	244,894	81.9	241,491	81,022
Nov.	10,541,500	8,843,466	83.9	287,976	240,124	83.4	248,447	93,203
Total 11 mo.	118,087,080	93,905,231	79.5	3,113,998	2,477,099	79.5	2,499,299	.....
1929								
Jan.	11,417,328	9,297,029	81.4	307,268	248,290	80.8	241,086	87,974
Feb.	10,539,072	8,435,967	80.0	283,632	228,034	80.4	227,595	87,726
March	11,417,328	9,416,990	82.5	307,268	256,118	83.4	266,895	96,209
April	11,417,328	9,278,701	81.3	307,268	251,147	81.7	250,366	98,162
May	11,417,328	9,526,063	83.4	307,268	264,830	86.2	240,395	89,485
June	10,978,200	9,170,955	83.5	295,450	241,028	81.6	231,230	81,880
July	11,417,328	9,045,362	79.2	307,268	236,377	76.9	240,617	88,275
Aug.	11,856,456	9,601,037	81.0	319,086	262,307	82.2	257,318	82,969
Sept.	10,539,072	8,553,104	81.2	283,632	235,962	83.2	247,329	87,304
Oct.	11,856,456	9,495,747	80.1	319,086	264,631	82.9	264,338	85,600
Nov.	10,978,200	8,481,999	77.3	295,450	237,508	80.4	211,328	67,304
Total 11 mo.	123,834,096	100,302,954	81.0	3,332,676	2,726,232	81.8	2,678,497	.....

Year and Month	Shipments of boxboard	Stocks of boxboard, end of month	Consumption of waste paper		Per cent of Capacity	Stocks of waste paper end of month	
			Capacity	Consumed		At plants	In transit and unshipped purchases
	Short Tons		Short Tons			Short Tons	
1928							
January	196,984	49,032	255,225	189,744	74.3	153,747	62,181
February	209,477	50,350	255,225	193,966	76.0	140,104	60,038
March	237,621	40,439	276,966	209,649	75.7	139,255	47,322
April	220,315	40,319	256,450	211,898	82.6	132,621	47,551
May	235,794	49,107	266,708	220,750	82.8	127,217	46,375
June	223,901	53,560	266,708	204,468	76.7	130,484	43,480
July	203,741	49,969	256,450	190,810	74.4	132,265	62,056
August	233,104	47,709	276,966	213,626	77.1	117,009	48,108
September	228,880	45,271	246,192	217,361	88.3	116,197	53,344
October	246,233	43,627	289,440	240,930	83.2	127,989	73,235
November	236,328	47,693	268,000	222,693	83.1	136,100	49,982
Total 11 mos.	2,472,378	.....	2,914,330	2,315,895	79.5	.....	.....
1929							
January	247,498	56,804	297,440	238,652	80.2	137,251	49,104
February	227,206	57,398	274,560	217,442	79.2	126,212	54,121
March	258,604	54,982	297,440	242,073	81.4	137,008	51,520
April	247,773	57,881	297,440	231,089	77.7	142,666	68,095
May	260,283	62,311	297,440	248,813	83.7	150,048	54,433
June	235,865	62,384	286,000	234,119	81.9	159,005	56,904
July	235,863	63,333	*297,440	215,537	72.4	175,306	64,359
August	263,140	61,853	309,231	256,815	83.0	171,360	61,571
September	240,349	58,709	274,560	*230,636	87.5	174,884	89,510
October	268,494	59,244	309,231	254,166	82.2	185,169	73,135
November	235,717	60,689	286,000	229,398	80.2	193,243	52,851
Total 11 mos.	2,720,792	.....	3,226,782	2,598,740	80.5	.....	.....

* Revised.

J. V. N. Dorr Awarded James Douglas Medal

John Van Nostrand Dorr, prominent metallurgical engineer and president of the Dorr Company—Engineers, has been awarded the James Douglas Medal of the American Institute of Mining and Metallurgical Engineers in recognition, according to the citation, "of his invention of apparatus and achievement in developing and improving hydrometallurgical practice." This medal, awarded annually for distinguished service in non-ferrous metallurgy, commemorates Dr. James Douglas, twice president of the A. I. M. E. founder of the Phelps Dodge enterprise, and will be presented formally at the annual convention of the Institute in New York in February 1930.

Mr. Dorr, after an early association with Thomas A. Edison, graduated from Rutgers University and became engaged in metallurgy in the Black Hills of So. Dakota and in Colorado, first as a metallurgical chemist, later as managing partner of a gold mine and then as a consultant. It was during this period that he invented the classifier, thickener, and agitator which bear his name, the use of which has since become virtually standard in the treatment of metaliferrous ores and in many branches of chemical, industrial and sanitary practice.

The development of the equipment early invented by Mr. Dorr and the investigations necessary to utilize it to the best advantage in the many industries whose practices have subsequently been improved through its use, led to the building up of an international, industrial organization with brances and affiliations in all parts of the world. Mr. Dorr is president of the Dorr Co. Inc., of the

J. V. N. DORR

United States, and the head of associated companies in London, Paris, and Berlin, and has established representation in South Africa, Australia, and Japan.

In 1916 Mr. Dorr was the recipient of the John Scott medal of the Franklin Institute for his invention of hydrometallurgical apparatus used extensively in the cyanide process. Rutgers University which Mr. Dorr has long served as a trustee, in 1927 conferred upon him the honorary degree of Doctor of Science "in consideration of his important contributions to the metallurgical and chemical industries."

Mr. Dorr is well known in the pulp and paper industry through the use of the Dorr White Water Saveall and the Dorr system of continuous causticizing in connection with soda and sulphate pulp. He and his associates have at various times delivered technical papers before the Technical Association of the Pulp and Paper Industry and the American Pulp and Paper Mill Superintendents Association.

Finch, Pruyn & Co. Elect Officers

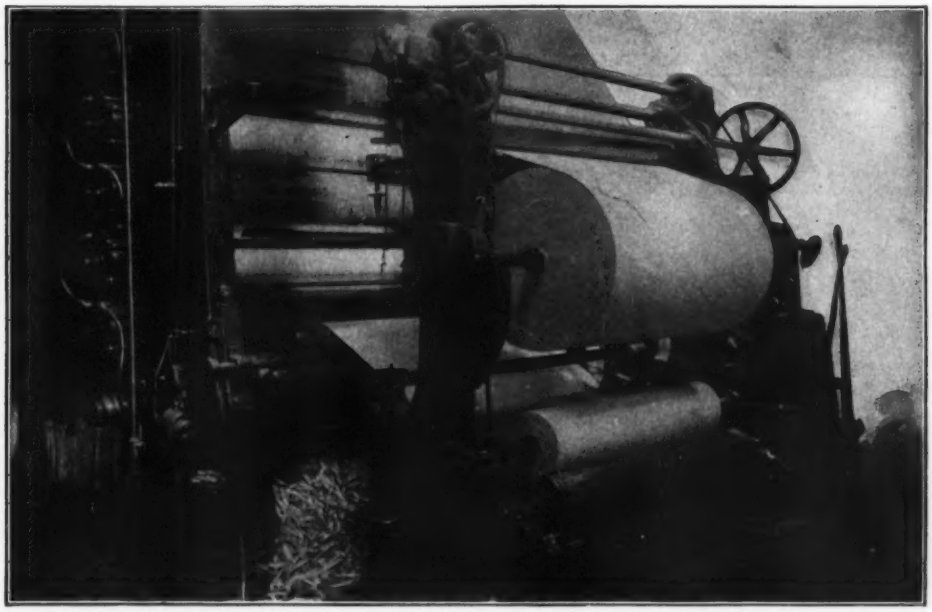
GLENS FALLS, N. Y., January 20, 1930.—At the annual meeting of Finch, Pruyn & Co. the following officers were elected for the year: Maurice Hoopes, president; Louis F. Hyde, vice president; Fred B. Chapman, treasurer, and Louis M. Brown, secretary. The directors elected include Maurice Hoopes, George N. Ostrander, Louis F. Hyde, Fred B. Chapman, Miss Nellie Howe and Louis M. Brown.

With the suspension of operations in the lime kiln of Finch, Pruyn & Co., within a few days it is believed that one of the oldest industries in the city will pass out of existence. It was announced that the kiln is to be closed because the company's supply of limestone is practically exhausted. For many years production of lime was one of the chief industries here and a fleet of canal boats was used in transporting the product.

"M & W" Drum Winders for Super-Calenders

PERMITS FASTER SPEED FOR CALENDERING

Shipping Rolls are made direct from Supers without rewinding the Rolls



Two-Drum Type Winder (Photograph taken in one of the mills of the Kimberly-Clark Co.)

Built with Two or Four-Drums
Makes use of wide stacks desirable

Rolls trimmed direct from Super-Calenders —(retrimming unnecessary).

Rolls readily changed from winding drums to unwinding shaft by means of self-contained electric motor lift.

Straight, hard rolls are made without wrinkles . . . no soft rolls or telescoped ends.

Winders equipped with automatic tension regulation to eliminate paper breaking between calender and winder . . . and to regulate the hardness of rolls to be wound.

For wide stacks of Calenders, the "M & W" Four-Drum Super-Calender Winder reduces the waste of finished product to a minimum.

All features of the well-known "M & W" Four-Drum Winder used for making shipping rolls direct on paper machine are retained—such as independent winding of rolls on independent shafts, etc.

"M & W" Four-Drum Super-Calender Winders equipped with Removable Top and Bottom Slitters. "M & W" Brass Collapsible Winding Shafts are the latest improvement for High Grade Mills.

Further Particulars Upon Request

THE MOORE & WHITE CO.
PHILADELPHIA, PA.
N. PHILA. STA. PENNA. R.R.
PAPER MILL MACHINERY

Patents Pending for Recent Improvements to "M & W" Drum Winders

Eastern Mfg. Co. Expands

The purchase of the Orono Pulp and Paper Company which has just been consummated by the Eastern Manufacturing Company is another step in the forward looking management of this company and in line with the progress this organization has made since its reorganization in 1928.

This new management, taking over the operation of a company, which had shown a loss of over a half million dollars the previous year, during the first year's operation showed a net profit of almost $600,000 and in 1929 had considerably increased this amount. This very satisfactory condition of affairs, in the face of unusual expenditures for repairs and improvements, is a real tribute to the ability and foresight of the new president, Edward M. Graham and his associates.

The conditions of affairs with Eastern Manufacturing Company before its reorganization was such that in order to market successfully its products in the highly competitive field in which it operates it was necessary for the new management to make extensive additions and alterations in its plant.

EDWARD M. GRAHAM

After eliminating unprofitable products and drastically reducing operating expenses the new management, as soon as finances could be arranged, started an improvement program which has culminated in the purchase of the Orono Company.

Among the improvements and changes is the establishment of filtering and coagulating systems for all the water used in the plants, which has resulted in an adequate supply of the pure, clear water so essential to the production of high grade pulps and papers.

Improvements and additions in the pulp mills, designed to increase the cleanliness and strength of the 50,000 tons of high grade bleached sulphite produced annually; additions to the storage capacity for fuel oil; and a re-arrangement of the railroad sidings have been made and the company is now equipped to give prompt service and high quality in its line of Eastco bonds, ledgers, writings, covers and specialties.

The Orono Pulp and Paper Company will be operated as a division of the Eastern Manufacturing Company with general offices at South Brewer, Maine and general sales offices, under the direction of vice-president, Fred A. Leahy, at 230 Park avenue, New York City.

Although there has been a change in the location of offices and management of the Orono Division no change in the grades produced or the policies already in force in marketing the 16,000 tons of sulphite specialties are contemplated.

At present the Eastern Manufacturing Company employs about 1100 people in its two divisions and the Orono Division will add about 300. It is safe to predict that under the capable management of the present officers this number will be steadily increased as the business of the company expands.

The officers of the Eastern Manufacturing Company are as follows: President, Edward M. Graham, Bangor; Vice President and General Manager, Stuart B. Copeland, Bangor; Vice President and Manager of Sales, Fred A. Leahy, New York.

Visits International Envelope Corp.

DAYTON, Ohio, January 14, 1930.—Richard Braden, assistant superintendent of the division of stamps, of the postoffice department at Washington, D. C., arrived here Friday in anticipation of the visit within a few days of F. A. Tilton, third assistant postmaster general, and M. L. Idsness, superintendent of the division of stamps.

Mr. Braden makes regular visits to the International Envelope Corporation, which prints Government stamped envelopes.

The visit of Mr. Tilton, however, will be the first he has made and it is stated as being one purely of inspection of this plant.

When here, Mr. Tilton plans to confer with Howard Marston, general manager, on the work the plant will do for the Government during the coming year.

All has been working satisfactorily at the envelope and newspaper wrapper concern on Plant street since the International took over the works from the Mid-West, or rather, secured the Government contract and then absorbed the local plant. Considerable new machinery was added and the equipment was modernized in every way. While most of the paper for the envelope and wrapper output comes from the mills of the International Paper Company, this feature still is one of importance to the Miami Valley, which formerly supplied all of the paper.

Chicago Paper Market Conditions

CHICAGO, Ill., January 27, 1930.—Chicago paper representatives, irrespective of grades and kinds of paper, were considerably interested and somewhat disturbed over the announcements made early this week by certain manufacturers of a drastic cut in kraft wrapping papers. Just when the Chicago paper market was going along in progressive fashion the announcement had an unusual effect and produced a good deal of conversation and conjecture. The *Chicago Tribune* of January 24 carried a good sized advertisement of one of the kraft mills relative to the situation, advising customers of the "vicious" situation and taking the opportunity for presenting a good argument on quality standardization. The kraft cut will affect manufacturers, converters and jobbers and at the same time, will not have any too wholesome an effect on the general paper market, according to reports. One Chicago representative stated that the price cut had reached as much as $10.00 a ton. At the same time, the market in other grades of paper was reported favorable. Slowly improving conditions in the fine paper grades, continuing from the last quarter of 1929, were noted. Ground woods were reported especially active. Tissues are holding up well. News print is practically the same as last week.

Japanese Paper Production

WASHINGTON, D. C., January 15, 1930.—Production by the mills of the Japanese Paper Manufacturers Association during the month of October amounted to 58,632 short tons and sales to 54,479 tons, bringing the total for the first 10 months of 1929 up to 591,059 tons and 569,059 tons respectively. Consumption by the mills of the association comprised in addition to 27,028 tons of chemical pulp and 19,877 tons of mechanical pulp, 2,780 tons of straw, and 1,225 tons of paper waste and 1,032 tons of rags.

Your New Mill . . .

as you want it . . . when you want it

WILL your new mill be ready for occupancy on the date you need it? Will your new mill provide definite production advantages? Will it be built within the expenditure you originally intended?

Austin can help you answer these questions in the affirmative, regardless of where you may be located, or where you intend to build . . . and here is the reason why:

Austin will build from your engineers' plans, or will design, build and equip complete under The Austin Method of Undivided Responsibility, guarantee the construction of a modern plant at a definite cost and within a guaranteed time limit. Under this result-getting plan your complete satisfaction is assured.

A telephone call or wire to any one of Austin's offices will bring helpful information and approximate costs on any contemplated project quickly. The memo below will bring "The Austin Book of Buildings."

These Companies in Your Industry Know from Experience the Benefits of Austin Service

Algonquin Paper Corp.	Ogdensburg, N. Y.
American Carton Corp.	Chicago
Angelus Paper Box Co.	Los Angeles
A. P. W. Paper Co.	Albany, N. Y.
Bailey Wall Paper Co.	Cleveland
Bogota Paper & Board Co.	Bogota, N. J.
Reg. N. Boxer Co.	Toronto, Ont.
California-Oregon Paper Mills	Los Angeles
Chase Bag Co.	Buffalo
Chase Bag Co.	Goshen, Ind.
Chase Bag Co.	Toledo, Ohio
Chillicothe Paper Co.	Chillicothe, Ohio
Cleveland-Akron Bag Co.	Boston Mills, Ohio
Columbia River Paper Mills	Vancouver, Wash.
Continental Paper Co.	Bogota, N. J.
Everett Pulp & Paper Co.	Everett, Wash.
Federal Paper Board Co.	Bogota, N. J.
Flintkote Co.	East Rutherford, N. J.
Foster Box Board Co.	Utica, N. Y.
Robert Gair Co.	Piermont, N. Y.
The Hagar Straw Board & Paper Co.	Cedarville, Ohio
Hammermill Paper Co.	Erie, Pa.
Hinde & Dauch Paper Co.	Sandusky, Ohio
Holyoke Gummed Prod. Co.	Holyoke, Mass.
Hygrade Corrugated Paper Products Co.	New York City
Ideal Corrugated Box Co.	Parkersburg, W. Va.
Inland Empire Paper Co.	Millwood, Wash.
The Jaite Company	Jaite, Ohio
Jordan Storage & Distributing Co.	Seattle
F. J. Kress Box Co.	Pittsburgh
Log Supply Co.	Berthierville, Que.
Morgan Wall Paper Co.	Chicago
Northwestern Paper & Pulp Co.	Astoria, Ore.
Oregon Pulp & Paper Co.	Salem, Ore.
Oswegatchi Paper Co.	Gouverneur, N. Y.
Oswego Falls Corp.	Fulton, N. Y.
J. B. Pearce Co.	Cleveland
Peninsular Paper Co.	Ypsilanti, Mich.
Royal & Co.	Bryn Mawr, Pa.
Schumacher Wall Board Corp.	Los Angeles
Schumacher Wall Board Corp.	Seattle
The Simplex Paper Corp.	Palmyra, Mich.
Southern Waxed Paper Co.	Atlanta
Spaulding Pulp & Paper Co.	Newberg, Ore.
Standard Wall Paper Co.	Hudson Falls, N. Y.
Standard Wall Paper Co.	Joliet, Ill.
Union Bag Co.	Vancouver, Wash.
Vancouver Kraft Co., Ltd.	Vancouver, B. C.
Warren Mfg. Co.	Bloomsbury, N. J.
Warren Mfg. Co.	Milford, N. J.
West Carrollton Parchment Co.	Dayton, Ohio
Western Waxed Paper Co.	Los Angeles
The White Tar Co. of N. J.	Kearny, N. J.

THE AUSTIN COMPANY

Engineers and Builders • **Cleveland**

New York Chicago Philadelphia Newark Detroit Cincinnati Pittsburgh St. Louis Seattle
Portland Phoenix The Austin Company of California, Ltd.: Los Angeles, Oakland and San Francisco
The Austin Company of Texas: Dallas The Austin Company of Canada, Ltd.

Memo to The Austin Company, Cleveland—We are interested in a.....project containing.....sq. ft. Send me a personal copy of
☐ "The Austin Book of Buildings." Individual .....Firm..... City..... PTJ-1-30-30

New York Trade Jottings

J. A. Bothwell, president and general manager of the Claremont Paper Company, Inc., spent a few days in New York last week.

* * *

G. F. Laycock, second vice-president of the Anglo-Newfoundland Development Company, Ltd., has been visiting New York.

* * *

L. R. Wilson, vice-president and managing director of the Abitibi Power and Paper Company, Ltd., was a New York visitor last week.

* * *

Lord Rothermere, British newspaper owner and president of the Anglo-Canadian Pulp and Paper Mills, Ltd., is visiting New York in the interest of his organization. While in the city he is making his headquarters at the Savoy-Plaza Hotel.

* * *

Association matters were freely discussed at a luncheon and meeting for full members only of the New York Division of the Salesmen's Association of the Paper Industry, held last Monday at the Fraternities Club, New York.

* * *

George M. McKee, president of the St. Maurice Valley Corporation, vice-president and managing director of the Canada Power and Paper Corporation, and president of the Port Alfred Pulp and Paper Corporation, was a prominent New York visitor last week.

* * *

Col. C. H. L. Jones, president of the Mersey Paper Company, of Liverpool, N. S., entertained a number of guests last Saturday aboard the company's new paper-carrying steamer *Markland,* docked at the foot of West 12th street. More than a score of executives of New York organizations attended the luncheon which marked the vessel's first trip here.

* * *

James Cleary has been appointed general sales manager of Combustion Engineering Corporation, New York. Mr. Cleary joined the organization in 1921 and has served successively as district manager at Philadelphia and Detroit, assistant general sales manager, and Western manager with offices at Chicago. Mr. Cleary will assume his new duties at New York at once.

* * *

W. A. Thompson, manager of the Bureau of Advertising of the American Newspaper Publishers Association, is scheduled to address the forthcoming meeting and luncheon of the New York Division of the Salesmen's Association of the Paper Industry, which takes place next Monday, February 3, at the Fraternities Club, New York. The subject of his discourse will be "News Print Advertising Prospects for 1930."

World's Fair Paper Exhibit

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., January 27, 1930.—If present plans are carried out all the processes of making paper from rags, wood, cornstalks and sugar cane will be displayed at the Chicago World's Fair in 1933, according to word from the exhibition headquarters. The report came from the sub committee on the exhibit for the paper and pulp industry. According to Allen Abrams, technical director of the Marathon Paper Mills, chairman appointed by the National Research Council, his committee plans a complete display of one hundred years of progress in the paper industry.

It is expected that living spruce, poplar and other trees from which paper is made will be provided as a part of the paper making exhibit, through the cooperation of Dr. D. T. McDougal, director of the Desert Laboratory of the Carnegie institute, who was present at the meeting. Another feature of the World's Fair as far as paper is concerned will be the distribution of paper and envelopes made on the exposition grounds with the World's Fair water mark.

Crystal Tissue Has Sales Convention

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, January 20, 1930.—An interesting and profitable sales convention was held at the plant of the Crystal Tissue Company in Amanda, near Middletown, the past week. Sessions were conducted for a period of three days and proved of such interest that the meetings continued from 10 A.M. until 10 P.M., of course not without intermissions or lunch periods—the boys still love to eat and recreate.

The convention, being the first held by the organization, brought a large representation from all sections of the country. Round-table discussions proved to be popular and much that was of benefit to the company and the salesmen was threshed out through this method.

Among those present were E. A. Smith, district representative from Los Angeles; D. F. Peok, district representative from Chicago; William Pesold, Milwaukee district; J. Leo Levy, Baltimore district, and M. L. Macauley, New York City district representative.

Mr. Smith delivered a talk on "New Lines for Crystal to Add," and he handled the topic in a masterly manner. He discussed the suggested new lines in detail; told who was handling them now; where the supply is most needed and how to sell them.

"New Markets and How to Develop Them" was discussed by H. W. Vogler, of Middletown, and John Kahill, of the Middletown plant, talked on "The Development of Wax Paper Sales."

Z. W. Ranck, president of the Crystal Tissue Company, talked twice during one morning session of the convention.

First he presented an historical sketch of the company in which he brought forth the principles of the concern, and its background; portrayed the methods which led to the success of the company and the attainment of its present position in the industry; and how its record of honest business procedure may be used in selling its product.

Mr. Ranck's second talk was devoted largely to the discussion of machines; products manufactured on the machines; what products can be made profitably on each machine; what sizes and trims are satisfactory, and the peculiarities of the machines.

One of the pleasant features of the convention was the banquet, given at the leading hotel, the Manchester, at which a number of mill representatives from the Eastern, Western and Central Districts were speakers. All predicted a prosperous year, based on present prospects and the amount of business obtained during the first month of the year, to date.

Sherman Perry, local sales manager, had charge of the general sessions and all office and staff men gave valuable help in putting over the first sales convention as a real success.

The Crystal Tissue Company has made substantial improvements during the past 18 months and President Ranck and his associates on the Board of Directors feel that these expenditures were well justified.

To Remove To Main Plant at Nashua

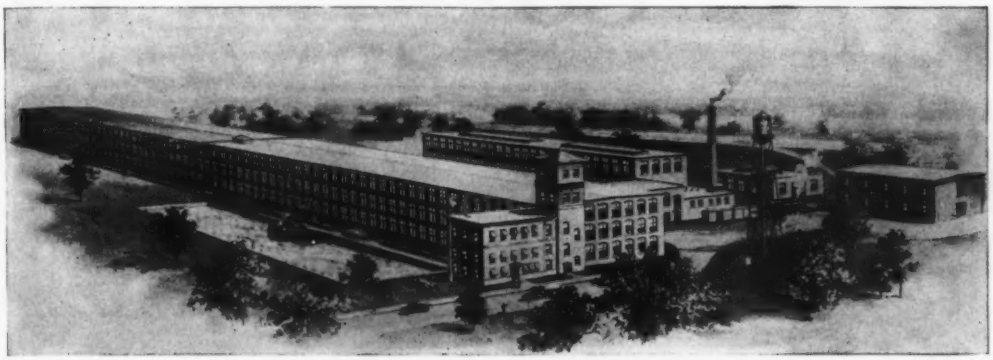
DAYTON, Ohio, January 27, 1930.—Announcement made by officials in Middletown states that on or about April 1, 1930, operations of the Nashua Gummed and Coated Paper Company will be discontinued in that city.

Robert A. Brown, general manager of the plant located on Plum street, Middletown, stated the concern would join with the main plant at Nashua, N. H.

Object of the removal, according to Mr. Brown is economy in production which it is said will be effected by transferring activities to the New England mills.

It is understood removal will be under way as soon as orders on the books of the Middletown branch are filled. The final schedule of orders is being completed at this time.

The concern has been located in the Miami Valley since 1916 and has employed 200 persons.



THE HOME OF ALBANY FELTS

Results Command Attention

GOOD BOARD is not made by accident. It is the result of attention to details. One important detail is the felt.

Without the proper Top and Bottom Felts the board gets away to a bad start, and is handicapped all the way through to the finished product.

A fast-running board machine of today cannot operate successfully with "any-old-felt." It needs Tops and Bottoms designed to meet its individual requirements. Special wools to give added strength, special weaves to permit ample water removal without interfering with finish. Everything must be *carefully balanced.*

The results modern and progressive board mills are securing from Albany Felts deserve your attention.

ALBANY FELT COMPANY ALBANY NEW YORK

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Piermont, N. Y.—The Robert Gair Company, 420 Lexington avenue, New York, manufacturer of corrugated paper boxes and containers, has plans nearing completion and will soon take bids for the construction of a new addition to plant at Piermont, consisting of a three-story reinforced-concrete unit. The structure will be used in part for storage and distributing service, and is reported to cost more than $75,000, with equipment. William Higginson, 101 Park avenue, New York, is architect.

Lititz, Pa.—The United States Envelope Company, Lititz, has plans under way for the construction of a new local mill, comprising one-story brick and steel unit, reported to cost close to $200,000, with machinery. J. H. Wickersham, Appel Building, Lancaster, Pa., is architect and engineer. It is understood that bids will be asked on general contract at an early date.

Kalamazoo, Mich.—The Saniwax Paper Company is running on a regular production schedule giving employment to full working force and it is understood that the company has booked orders in excess of this time a year ago, and sufficient to insure present production basis for some weeks to come.

Monroe, Mich.—The Consolidated Paper Company is said to be planning the rebuilding of portion of storage division, destroyed by fire January 16, with total loss reported at close to $400,000, a considerable portion of the fund being represented by stock.

West Point, Va.—The Albemarle-Chesapeake Company, West Point, is said to be pushing construction on new local mill, on which work was started a number of months ago, and it is proposed to have the unit ready for service in the near future. It will be equipped for an initial output of 100 tons of paper per day, and is reported to represent an investment of more than $1,000,000, with machinery. Elis Olsson is vice-president and general manager.

Camas, Wash.—The Crown-Willamette Paper Company, Camas, an interest of the Crown Zellerbach Corporation, San Francisco, Cal., is carrying out an expansion and improvement program at local mill for considerable increase in present capacity. Following the removal of an old paper-making machine recently, three new such units will be installed, with new auxiliary operating equipment. The plant will concentrate on the production of kraft and sulphite wrapping papers, waxed papers and kindred stocks. The development is reported to cost over $2,000,000.

Schell, W. Va.—The West Virginia Pulp and Paper Company, 200 Fifth avenue, New York, operating mills at Covington, Va.; Tyrone and Williamsburg, Pa., and at other points, is said to be identified with a power project on the Stony River, near Schell, approximately 50 miles from Cumberland, Md. The development will consist of a series of impounding dams on the river noted, with the installation of a generating plant to be equipped for an initial output of close to 12,000 kw. A transmission system will be constructed. The Potomac Edison Company, Cumberland, is also identified with the project, as is the Celanese Corporation of America, Inc., Amcelle, near Cumberland. It is understood that the West Virginia Pulp and Paper Company and other affiliated interests will secure power for plant service from the proposed development.

Dallas, Tex.—The Southwest Tablet Manufacturing Company, South Dallas, manufacturer of pads, notebooks and other commercial paper goods, is planning the early rebuilding of portion of plant, including storage and distributing department, recently destroyed by fire with loss reported at close to $100,000, including equipment and stock.The reconstruction is estimated to cost close to a like sum.

Housatonic, Mass.—The Rising Paper Company is said to be arranging for early erection of superstructure for its proposed new mill unit, to be three-story, brick, steel and concrete, 75x180 feet, reported to cost in excess of $100,000, with equipment. It will be used for expansion in the finishing department. The company is a subsidiary of the Strathmore Paper Company, Mittineague, Mass.

Brooklyn, N. Y.—The Mermaid Paper Company, recently organized with a capital of $30,000, by George Levine, 2174 East Ninth street, Brooklyn, and associates, is reported to be planning early operation of a local factory for the manufacture of a line of paper goods.

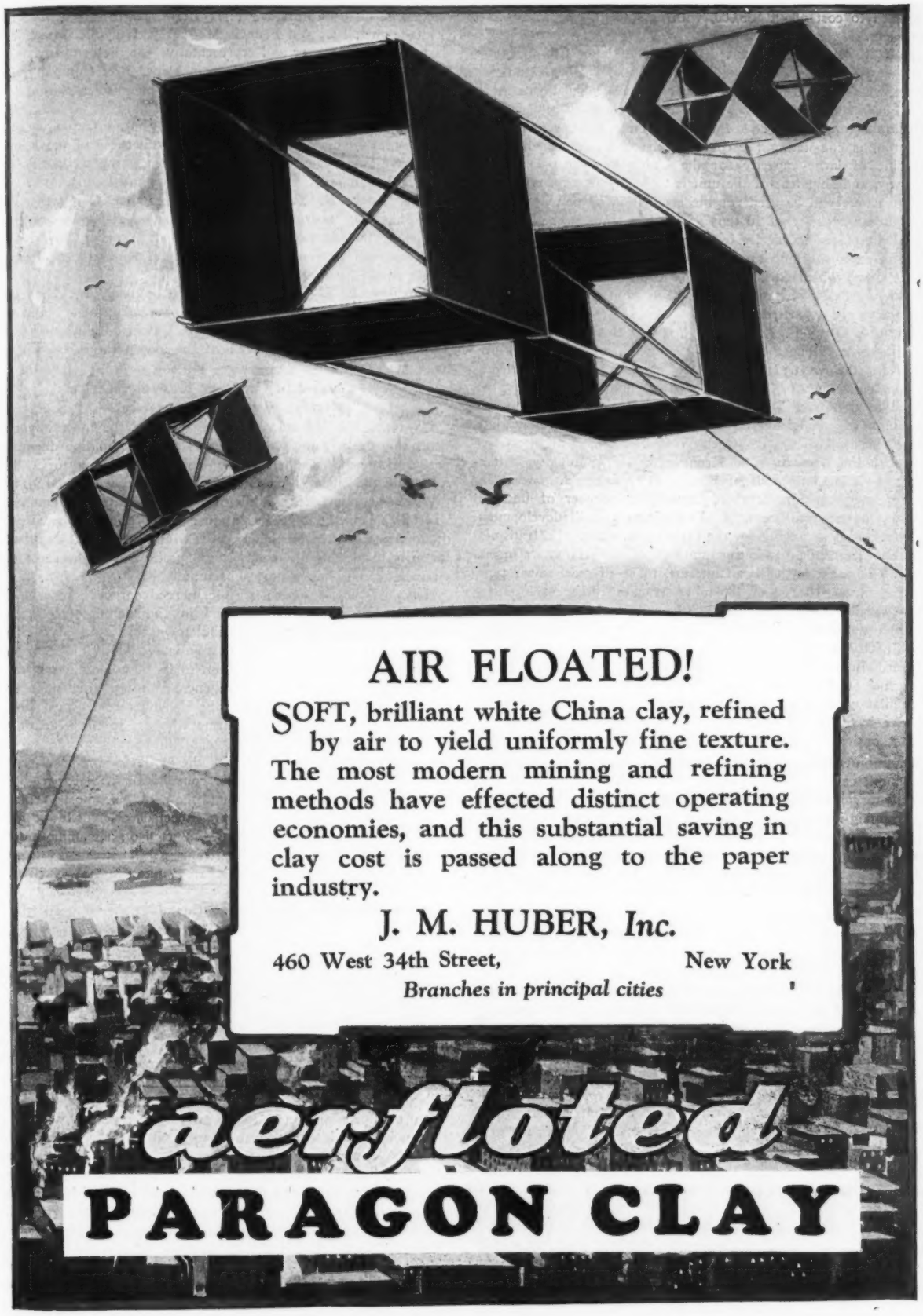
Buffalo, N. Y.—The Meyers Wallpaper and Supply Company, Akron, Ohio, has leased the four-story building at 54-56 East Genesee street, extending through to 551 Washington street, and will occupy for a new branch for the Buffalo district, using a large portion of the structure for storage and distributing service. Alterations will be made in building.

Milwaukee, Wis.—The building at South Water and Clinton streets, used by the Pulpprocess Company as a storage and distributing plant, was damaged by fire on January 16. An official estimate of loss has not been announced.

Carthage, N. Y.—The Crown-Zellerbach Corporation, San Francisco, Cal., is making ready for early operations at the local mill of the West End Paper Company, acquired a number of months ago, and which has been remodeled and improved for a new line of output, including the installation of considerable new machinery. It is expected that production will begin within a week or so; the output will be devoted to tissue papers and the plant will have a rating of about 9,000 tons per annum. The company is said to have expended over $250,000 in remodeling and equipping the mill.

New York, N. Y.—C. B. Hewitt & Bros., Inc., 16 Ferry street, paper stocks, etc., has acquired the five-story building at 23-25 Greene street, and will occupy for expansion. The structure will be remodeled and improved. The purchasing company will remove its present establishment to the new location, including departments for glues, etc.

Baltimore, Md.—The Baltimore Sales Book Company, 3122 Frederick street, manufacturer of commercial paper products, has awarded a general contract to DeCou & Chidlaw, 857 North Eutaw street, for a new addition to its plant, to be one-story,


AIR FLOATED!
SOFT, brilliant white China clay, refined by air to yield uniformly fine texture. The most modern mining and refining methods have effected distinct operating economies, and this substantial saving in clay cost is passed along to the paper industry.
J. M. HUBER, Inc.
460 West 34th Street, New York
Branches in principal cities
aerfloted
PARAGON CLAY

reported to cost about $35,000, with equipment. T. T. Spear is president.

Detroit, Mich.—The plant of the Globe Paper Company, occupying a portion of the four-story building at 115 West Jefferson street, was damaged by fire on January 18. An official estimate of loss has not been announced. The damage will be replaced.

Wilmington, Del.—The Pusey & Jones Corporation, Wilmington, is completing the construction of a new paper-making machine of large capacity for the Union Company, Drammen, Norway, and shipment of the unit is to be made at an early date. The machine will be used for the production of news print, and will have a capacity of 10 tons of finished stock every 24 hours. It will be placed in service by the Union Company in connection with an expansion and improvement program now under way at its mill, and which is expected to be completed in June. It will provide for extensive increase both in pulp-making and paper manufacturing departments.

Toronto, Ont.—F. N. Burt & Co., 330 Bay street, Toronto, manufacturer of paper boxes and containers, is having plans prepared for the construction of a new plant in the Mount Dennis section, consisting of a main one-story unit, 175x350 feet, reported to cost over $175,000, with equipment. It is understood that bids will be asked on general contract at an early date. Earle Sheppard, 57 Queen street, West, Toronto, is architect.

Stockholm, Sweden—The Kreuger & Toll Company, Stockholm, operating pulp and paper mills, is arranging a general expansion program for increased capacity at number of units in different parts of the country. Preliminary to mill development, the company is arranging for the early construction of a transmission line from the generating stations of the Hammarsforsens Power Company, an affiliated interest, to be of steel tower type, running for a distance of 186 miles, reaching different localities where service can be furnished to the pulp and paper mill units. The line will operate at 70,000 volts, and is reported to cost more than $1,500,000.

Niles, Mich.—The French Paper Company is holding to close to normal production schedule at its local mill, with employment of regular working quota. It is understood that a fair volume of advance business has been procured to insure operations on the current basis.

Beaumont, Tex.—The Gulf Paper Products Company, Inc., Beaumont, care of O. B. Sawyer, 875 Fifth avenue, Beaumont, recently organized by Mr. Sawyer and associates, is reported to be arranging immediate call for bids for proposed new local plant for the manufacture of a line of commercial paper products, including blank books, tablets, etc. The plant will be 60x120 feet, and is reported to cost about $60,000, with equipment. W. B. Livesay, San Jacinto Life Building, Beaumont, is architect.

Dalhousie, N. B.—Fire, January 10, destroyed a group of eleven buildings of the Canadian International Paper Company, at this place, with loss reported in excess of $125,000. No announcement has been made regarding rebuilding.

Liverpool, N. S.—The Mersey Paper Company, Ltd., has arranged for a bond issue of $2,000,000, a portion of the proceeds to be used for general financing, mill development and operation. Colonel C. H. L. Jones is president and general manager.

New Companies, Etc.

New York, N. Y.—St. Lawrence Paper Corporation has been incorporated with capital of 2000 shares of stock, no par value, to manufacture and deal in paper products. The company is represented by Palmer & Serles, 46 Cedar street, New York.

Richmond, Va.—Wilson Paper Box Company, 2217 East Franklin street, has filed notice of increase in capital from $25,000 to $75,000, for general expansion in operations. The company is headed by Thomas B. Bowles, president.

Huntingdon, Pa.—The Smith Tablet Company has been incorporated with a capital of $10,000, to manufacture and deal in commercial paper products, including tablets, pads, note books, etc. The incorporators are T. L. Perot, Jr., 5141 Morris Street, Philadelphia, Pa.; and Francis McSherry, Holyoke, Mass. The last noted is treasurer and representative for the company.

New York, N. Y.—The Prospect Paper Box Company, Inc., 131 Mercer Street, has arranged for an increase in capital from $14,000 to $25,000, for general expansion.

Chicago, Ill.—Officials of the Vortex Manufacturing Company, 421 North Western avenue, manufacturer of paper cups, etc., have voted to change the name of the company to the Vortex Cup Company, becoming effective immediately.

New York, N. Y.—The Plymouth Paper Company, New York, has been incorporated with a capital of 100 shares of stock, no par value, to manufacture and deal in paper goods. The company will be represented by Max N. Ginsberg, 5 Beekman street, New York, attorney.

Flushing, L. I.—The J. C. Paper Company, Inc., has been incorporated with a capital of $20,000, to manufacture and deal in paper products of various kinds. Louis R. Abrams, 1950 Dividson avenue, Bronx, is one of the incorporators.

Inland and Gardner-Harvey Merge

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, January 20, 1930.—One of the most important deals effected here for some time was the consolidation during the past week of the Gardner-Harvey Container Company of Middletown and the Inland Box Corporation of Indianapolis, Ind.

It was announced in Middletown that hereafter the companies will operate as the Inland Container Corporation, as by merging the interests of the firm the concerns would be enabled more satisfactorily to meet the demands of the trade and at the same time increase their clientele most substantially.

H. C. Krenert, president of the merged corporation, said that general offices will be maintained in Indianapolis but that an assistant staff will function in Middletown, where the plant of the Gardner-Harvey Container Company is located. This company recently completed a large addition to its new container plant in which modern machines and equipment were installed, making it one of the leading industries of the Paper City. Edward T. and Colin Gardner, paper manufacturers who are at the head of the mills bearing their name, and Thomas Harvey, also a practical mill man who has been associated with the Gardners for years, established the Middletown plant after consultation with expert board interests in Dayton, and have found the enterprise most profitable. A success from the start, it is now expected with the Indianapolis corporation, that business will be conducted on a mammoth scale. The new corporation is planning to increase its facilities for serving the nearby markets of Cincinnati, Dayton and other cities in Ohio and Eastern Indiana.

The capitalization of the Inland Container Corporation will be $2,500,000.

B. Offen Addresses Chicago Salesmen

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., January 27, 1930.—B. Offen of B. Offen & Co., addressed the Chicago Division of the Salesmen's Association of the Paper Industry at its Monday noon, January 20, session at the Hamilton Club. The large attendance found plenty of interest in Mr. Offen's discussion of humidity and temperature control for printing and lithographing plants. His discussion covered moisture effects on paper, paper stretching and wrinkling and other points of interest to the paper salesmen. Following his talk the salesmen turned the meeting into a general discussion and asked the humidity and temperature expert a number of questions relative to particular papers and to the costs of humidifying installations. The subject of de-humidifying plants was also brought up. No plans have yet been made for the February meeting, according to Harold Knott, president of the association, inasmuch as all efforts are being concentrated on getting a good representation at the luncheon meeting in New York February 17.

LOCKWOOD'S DIRECTORY

OF THE PAPER AND ALLIED TRADES

1930 EDITION

CORRECTED UP-TO-DATE

CONTENTS

Entire contents classified under separate headings for the United States and Canada, alphabetically and geographically arranged by states.

City Addresses of Mills and Mill Supply Houses
Classified List of Paper Mill Products
Classified List of Pulp Mill Products
Coated Paper Manufacturers
Envelope Manufacturers
Glazed and Coated Paper Manufacturers
Idle Mills
Mill Officials
Pad Manufacturers
Paper Merchants
Paper Stock and Rag Dealers
Paper Bag Manufacturers
Paper Box Manufacturers
Paper, Wood Pulp and Chemical Fiber Mills of the United States, Canada, Cuba, Mexico and South America
Paper Specialties Manufacturers
Papeterie Manufacturers
Prepared Roofing Manufacturers
Rags and Paper Stock Consumed by the Paper Mills
Stationers in United States, Porto Rico, Canada, Cuba, Hawaiian Islands and the Philippine Islands
Statistical Table of Mills
Tablet Manufacturers
Tag Manufacturers
Toilet Paper Manufacturers
Trade Associations
Twine Manufacturers
Vegetable Parchment Manufacturers
Wall Paper Printers
Water Marks and Brands
Waxed Paper Manufacturers

1,000 PAGES
of USEFUL INFORMATION

Traveler's Special Pocket Edition

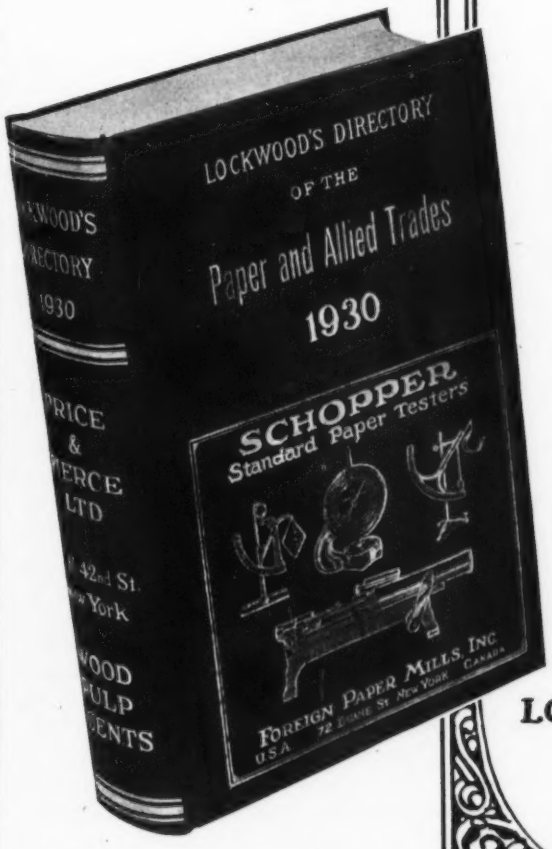
bound in a flexible cover for use of traveling men, comprising the Paper and Pulp Mills, Coating Mills and the Mill Officials. Price $7.50, including delivery charges. ($7.00 cash with order.)

Published by
LOCKWOOD TRADE JOURNAL CO.
10 East 39th Street
New York, N.Y., U.S.A.

The OLDEST INDUSTRIAL DIRECTORY in the United States

NOW READY FOR DELIVERY

Price $7.50



The 56th Consecutive ~ Annual Issue ~

PAPER TRADE JOURNAL

ESTABLISHED 1872

10 East 39th St., New York

Henry J. Berger
Editor

Ronald G. Macdonald
Editor Technical Section

Herbert J. Laughton
Associate Editor

Thomas J. Burke, C. A.
Editor Cost Section

Reginald Trautschold, M. E.,
Power Engineering Consultant

Member A. B. C. Audit Bureau of Circulations

Vol. XC **New York, January 30, 1930** **No. 5**

COMING EVENTS

American Paper and Pulp Association, fifty-third Convention and Meeting. Pennsylvania Hotel, February 17-20. Annual Meeting, Thursday, February 20. Annual Banquet, Grand Ball Room, Thursday, February 20.

National Paper Trade Association of the United States. Convention. Pennsylvania Hotel, February 17-19. Theatre Party, "Sons of Guns," Imperial Theatre; Supper-Dance, Hotel Astor, Wednesday, February 19.

Technical Association of the Pulp and Paper Industry. Convention, Pennsylvania Hotel, February 18-20. Luncheon, Thursday, February 20.

Salesmen's Association of the Paper Industry. Annual Meeting, Pennsylvania Hotel, Tuesday, February 18. Luncheon, Tuesday, February 18.

New York Association of Dealers in Paper Mills' Supplies, Annual Banquet, Hotel Commodore, Wednesday, February 19.

OUTLOOK IMPROVES

The recovery in business during the last few weeks has been sufficiently marked, according to a survey made by the Guaranty Trust Company, to warrant a more optimistic attitude. While there has been no conclusive evidence of an upturn in business, the survey says, the outlook has improved considerably since the first of the year.

"The tangible signs of improvement are confined mostly to industrial operations," the survey continues. "Perhaps the outstanding development in this connection is the increase in demand for and output of steel, which was foreshadowed by the large gain in unfilled orders last month. The report for the first week of January was rather disappointing, with weakness shown both in production and in prices. As regards the rate of output, this tendency has been reversed in the last few weeks. Construction contracts awarded since the beginning of the year have also been in encouraging volume, the daily average being much larger than in December and nearly equal to that of a year ago.

"Such reports as these have been made the basis for predictions that an immediate business revival is in prospect, with perhaps another recession in the next few months, and a slower and more sustained recovery later. Although such a trend is by no means without precedent, the upward movement since the first of January, encouraging as it is, has been hardly general enough to warrant a very confident expectation of imminent expansion in business at large. A more conservative view of the present situation seems to point to a period of several months of subnormal, though not severely depressed, industrial and trade activity, with a genuine recovery later in the year.

"Credit conditions certainly present no serious obstacle to business expansion, at any rate in the chief industrial centers. Although the liquidation of collateral loans since the panic in the stock market has not proceeded so far as might have been expected, and although conditions are not so easy in certain country districts as in New York and other leading cities, credit is generally available for business purposes at moderate rates. The slight stringency in the money market at the year-end, as was anticipated, proved to be purely temporary. The seasonal expansion in Federal Reserve note circulation in December has been entirely canceled, and the amount of notes now outstanding is the smallest since last July.

FOREIGN PAPER TRADE

Exports of paper and paper products from the United States during November, 1929, were valued at $2,877,917 as compared with $3,230,427 the previous month, and $2,885,976 November a year ago according to the Paper Division of the Department of Commerce.

Shipments of wrapping paper show an increase of 1,120,204 pounds over October, and 1,204,232 pounds over a year ago. Book paper exports show a slight decrease in comparison with October, but indicate an increase over November of last year.

The news print figures for these periods are: 1,561,611 pounds for November, 1929, 5,616,578 pounds for October, 1929, and 2,863,269 pounds for November, 1928. Wall board exports decreased considerably in comparison with the two-mentioned periods.

Exports of box board show a very substantial decrease under November, a year ago. Other paper board and straw board shipments decreased somewhat under October, but were about on a level with November, 1928. There was a slight increase in exports of bristols and bristol board over both periods mentioned.

Writing paper shipments declined to the extent of 286,842 pounds compared with October, and 1,183,867 pounds as compared with November, 1928. Papeteries exports declined slightly in comparison with October, 1929, but show somewhat of a gain over the corresponding month last year. Shipments of boxes and cartons were about on a level with the previous month, but show a decided decrease as compared with the corresponding month last year.

Tissue and crepe paper exports increased to some extent over the two mentioned periods. Toilet paper exports decreased slightly under October and a very slight increase is shown over the corresponding month a year ago.

There was a substantial decrease in shipments of paper towels and napkins as compared with October, and a very slight increase as compared with November, 1928. Filing folders, index cards, and other office forms decreased in export shipments over both October, 1929, and November a year ago.

Imports of paper and paper products into the United States during November were valued at $14,580,269, as compared with $14,929,520, and $14,146,560 in November, of last year.

Imports of news print were about on a level with October and

increased slightly over a year ago. Incoming shipments of other paper and paper products decreased to some extent under October, but increased substantially over a year ago.

Statistics covering receipts of paper base stocks in comparison with October figures show a considerable decrease in the volume of pulpwood receipts over October, and the corresponding month a year ago. Incoming shipments of wood pulp show a tonnage of 147,091, as compared with 153,911 in October, and 130,208 tons a year ago. Rags and paper stock and waste bagging, waste paper, etc., shipments show a decrease in comparison with October and a very slight increase over November, 1928. Old rope and all other paper stock imports increased considerably over the above mentioned periods.

The total value of paper base stocks during November is given as $9,258,869 as against $10,385,555 in October, and $9,021,344 in November, 1928.

Judgment Reversed in Parchment Paper Case

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich, January 27, 1930.—Word of victory in a suit alleging conspiracy and involving damages in excess of $200,000, was received Saturday by Jacob Kindleberger, president of the Kalamazoo Vegetable Parchment Company. The Kalamazoo Vegetable Company together with the Paterson Parchment Company, Paterson, N. J. and the West Carrollton Parchment Company, West Carrollton, Ohio, had been made joint defendants in a suit brought by the Story Parchment Company, of Massachusetts.

It was alleged that the three defendants had combined and conspired to put the Story Parchment Company out of business by unfair business methods, thus causing the failure of the plaintiff concern. The case was heard in the Federal court in Boston and a verdict was returned for the Story Parchment Company. This occurred about a year ago. The case was then appealed to the United States Court of Appeals, Boston, and Friday a verdict was handed down, reversing the judgment of the lower court and returning in all cases for the defense.

At the time this case was originally tried, President Kindleberger, declared there was no conspiracy against the plaintiff company, but that owing to inadequate production facilities they had been unable to meet prices regularly quoted by the concerns made defendants in the suit.

West End Paper Mill Reopens

[FROM OUR REGULAR CORRESPONDENT]

CARTHAGE, N. Y., January 27, 1930.—Operations in the newly remodeled plant of the Crown-Zellerbach Company, formerly known as the West End Paper Mill, were started this week and production from now on will gradually be increased. The new machine room has been practically completed after having been under construction since early in November. It is 250 by 150 feet with all modern conveniences. Engineers of the company are now at work installing the largest of the two machines which will occupy the new machine department. The greater portion of the work of installing this machine has been completed and it is expected that it will be in operation before the other machine is placed in position.

The work of refinishing the entire interior of the mill is proceeding rapidly and although construction is still being carried on in the new section it is expected that operations will be increased constantly from now on until early spring when the mill will be running on full time. J. O. Zellerbach, president, and M. L. Dinkelshel, eastern division manager of the company, spent the past week here inspecting the plant and making arrangements for the return to normal operations.

Paper Production for November

According to identical mill reports to the American Paper and Pulp Association from members and cooperating organizations, paper production in November registered a decrease of 9 per cent as compared with October 1929, and an increase of 1 per cent over November 1928. Paper production for eleven months ending November 1929, showed an increase of 6 per cent over the same period in 1928.

The November production for all the individual grades, excepting news print, felts and building, bag and wrapping papers, registered an increase over November 1928 output. Uncoated book paper production showed an increase of 17 per cent over November 1928, writing 7 per cent, hanging 10 per cent, tissue 5 per cent and paper board 2 per cent. Production of writing paper decreased in November 1929 as compared with November 1928, by 12 per cent, bag paper 17 per cent, felts and building paper, 7 per cent and news print 8 per cent.

Shipments of all grades in November 1929, excepting news print, felts and building, bag and wrapping papers, increased over November 1928, the total shipments being 1 per cent above the total of last year.

News print and hanging papers registered decreases in inventory at the end of November 1929 as compared with October 1929. As compared with November 1928, news print, wrapping, bag, writing and tissue papers showed increases in inventory. The total stocks on hand for all grades was 2 per cent above October 1929, and 4 per cent below that of November 1928.

Identical pulp mill reports for November 1929 indicated that the total production of all grades of plup was 6 per cent less than November 1928.

During November 1929, 10 per cent more Mitscherlich sulphite and 3 per cent more soda plup was consumed by reporting mills than in November 1928. The total shipments to outside markets of all grades of pulp in November 1929 were substantially greater than the total for November 1928.

All grades of pulp, excepting groundwood, Mitscherlich sulphite and soda, showed increases in inventory at the end of November as compared with the end of October 1929. As compared with November 1928, all grades excepting bleached sulphite, easy bleaching sulphite, and kraft pulp, registered decreases in inventory.

REPORT OF PAPER OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF NOVEMBER, 1929

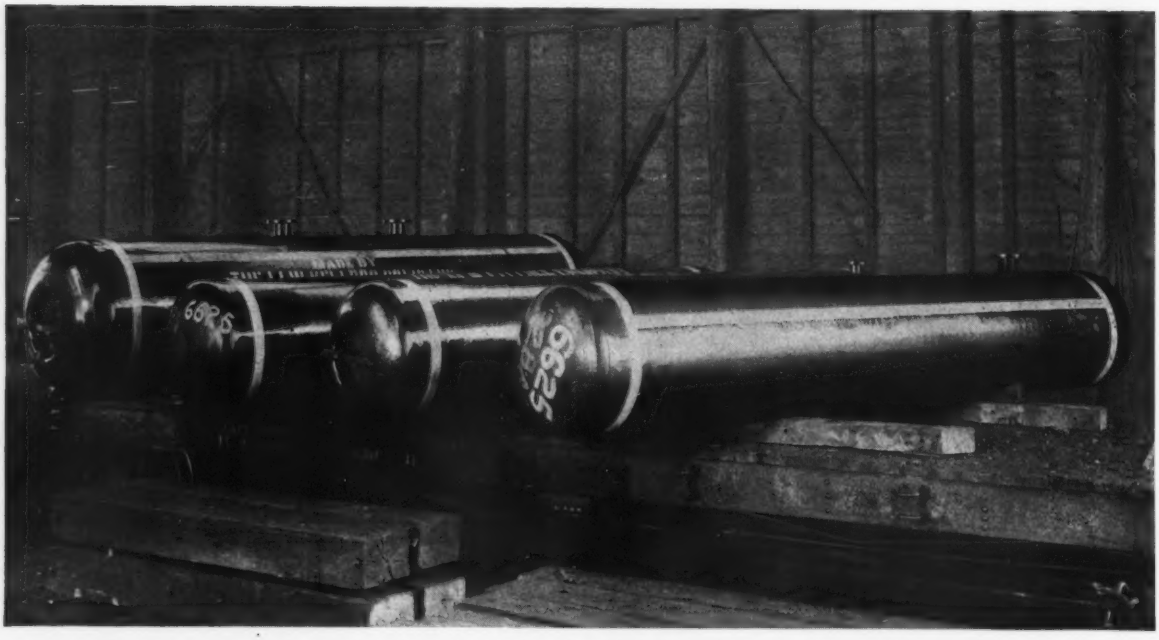
Grade	Production tons	Shipments tons	Stocks on hand end of month tons
News print	113,729	116,725	23,549
Book (uncoated)	94,248	91,235	43,857
Paper board	213,335	211,315	55,978
Wrapping	49,132	49,151	47,001
Bag	13,361	12,838	5,576
Writing	30,997	29,462	40,599
Tissue	12,840	12,609	7,731
Hanging	6,427	7,256	3,807
Felts and building	5,075	4,720	3,117
Other grades	26,772	26,188	17,144
Total—All grades	565,916	561,499	248,359

REPORT OF WOOD PULP OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF NOVEMBER, 1929

Grade	Production tons	Used during month tons	Shipped during month tons	Stocks on hand end of month tons
Ground wood	79,408	87,198	3,958	45,947
Sulphite news grade	38,477	31,403	6,987	6,509
Sulphite bleached	26,148	22,365	3,472	3,379
Sulphite easy bleaching	3,660	2,995	377	1,064
Sulphite Mitscherlich	7,096	6,377	759	916
Sulphate pulp	29,142	20,974	7,361	6,396
Soda pulp	24,046	15,618	8,755	3,601
Pulp—Other grades	22	.....	98	54
Total—All grades	207,999	186,930	31,767	67,866

Lawson Ramage Leaves Missisquoi Co.

SHELDON SPRINGS, Vt., January 27, 1930.—Lawson Ramage has resigned his position as vice president and general superintendent of the Missisquoi Pulp and Paper Company. Mr. Ramage has no immediate plans for the future.



Three 36 in. I. D. x 13/16 in. thick x 17 ft. 7-3/8 in. long, and one 48 in. I. D. x 1-1/16 in. thick x 18 ft. 2-1/8 in. long. Forge and Hammer Lap Welded Boiler Drums built for 202 lbs. working pressure. Furnished the Badenhausen Corp. for installation at the Brown Paper Mills, Inc., Monroe, La.

Advance shipment of Kellogg Boiler Drums

—for an industrial power plant specifying a total of twenty-eight drums

KELLOGG forge and hammer lap welded products—particularly digesters—are widely known in the paper industry. Similarly, Kellogg boiler drums have set new standards in the power field. Kellogg now adds to these records by furnishing for the Brown Paper Company's new power plant a total of twenty-eight forge and hammer lap welded boiler drums.

The four drums illustrated are the first units of this group being installed by the Badenhausen Corporation. Through hot bending, each of these Kellogg boiler drums is free from cold working strains. Unlike riveted units, these forge and hammer lap welded drums are free from caustic attack, and will not fail from fatigue. Kellogg construction provides more than the expected life, thereby affording a greater ultimate economy.

THE M. W. KELLOGG COMPANY, 225 BROADWAY, NEW YORK

Birmingham	827 Brown-Marx Building	Pittsburgh	Oliver Building
Boston	12 Pearl Street	Los Angeles	742 Western Pacific Building
Chicago	53 W. Jackson Boulevard	Tulsa	Philtower Building

KELLOGG

FORGE AND HAMMER LAP WELDED BOILER DRUMS . . . HEADERS . . . RECEIVERS . . . SEPARATORS . . . COMPLETE POWER PLANT PIPING

ALL KELLOGG FORGE AND HAMMER LAP WELDED PRODUCTS ARE INSURABLE

Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

Human Relations in Beater Furnish Control*

By Paul Torre[1]

The position of the chemical engineer in the mill depends in a large degree upon the organization or management of the company. He may be directly responsible to the president, manager or other executive of the organization, to the superintendent, or he may work more or less as an independent department, and in the case of a large organization with several widely scattered mills, he may operate under a technical head located at the main office or laboratory. In fact there are several systems of operation in the different mills which may be considered.

Let us take a mill making several grades or one running specialties rather than one running continually on a single grade where the furnish is standardized. The raw materials which make up the furnish such as sulphite, rags, paper stock, clay, alum, size, etc., must be continually tested and analyzed so that each furnish can be made up to best conform with the sheet to be made, at the lowest cost possible. The latter point is a very important one today and it is often a real problem to meet the specifications of an order and still keep within the danger line or cost limit. Ordinarily an order which is made regularly and standardized upon, is taken though the regular channels with very little difficulty. In the case of a new order being made for the first time, the chemist must analyze the sample to be matched and then either he, the superintendent or both, make up the furnish to obtain as close a comparison to the sample as possible. In the bleaching of pulps for all sulphite papers, where two, three or more different grades are used, the chemist knowing the strength, bleachability, etc., of these pulps can properly blend them to best advantage. The calculation of air dry weights and the correct amounts of bleach to use. All of this work can be carried out by the chemist in cooperation with the superintendent. The same may be said concerning other operations such as the washing of stock, the furnishing of correct amounts to the beaters, control of beating, density and freeness of stock, pH and so on until the stuff is delivered to the paper machine.

The position of the chemist in the mills or the control he may have over the various operations depends largely upon the nature of the organization plan. If he is working under the president or manager, he may have complete control over the furnish, and thereby assume the responsibility of the results obtained in the finished product. The same may be said of the technical department directed from a main laboratory although the superintendent may share in the work and the responsibilities. In the case of the technical department operating under the manufacturing department with the superintendent at the head, the chemist generally works as an assistant and the two co-operate in the preparation and delivery of all furnishes with the superintendent assuming the responsibility. Since the superintendent has or should have the responsibility of the complete operation of the mill and the quality of the finished product resting upon his shoulders, it is only natural that he should be kept constantly in touch with all of the major technical operations in the mill.

As orders are placed in the mill to be run on the machines, they should pass the inspection of the superintendent and chemist before delivery to the machine or beater rooms. The chemist must check each furnish and figure the proper weights of sulphite or other raw materials to be used according to the moisture and other tests of the lot or shipment consumed. It is often the case that while an order is running well on the machines and the sheet is up to all specifications, the chemist goes unbothered, but as soon as trouble starts he is called on to correct and explain this trouble which may be traced back to unintentional mistakes in furnishing operations in the beater room or to the furnish not being entirely suitable for the grade of paper for which it is intended. In any case it is his duty to do everything possible to correct these troubles.

In conclusion, I wish to state that I do not favor the plan of the technical department having complete control over the work of making up the furnish and the finishing of raw materials in the mill. Nor do I believe in the opposite extreme of complete control by the manufacturing department and not allowing the technical man to do his share of the work. One case may be cited where the head of the paper mill had more or less complete control over the furnishing of raw materials. He at one time conceived the idea that size added to the furnish, especially in the beater or machine chests hardened this particular light weight sheet. The result was that the size was increased, with alum in proportion to nearly six per cent, far more than the sheet being run could possibly carry. This excessive waste went on against the advice of the technical department, until a neutral technical man was called to make a survey of the situation and on the basis of his report, the size was reduced to normal with equally good results and with considerable savings. If the technical department had had a little more authority in this case, with some cooperation, this probably could have been avoided. Nevertheless, from then on, the word and advice of the chemist carried a little more weight than it previously did, since he was given reasonable liberty to go ahead and perform the work which he thought best and most beneficial. However it may prove very detrimental if the technical department assumes too much responsibility and goes about the mill doing things and making changes unknown to the manufacturing department and against their policy.

I therefore believe that the very best results can only be obtained in the mill, in the handling of the furnish, by the fullest measure of cooperation and team work between the superintendent and chemist. Then, each man or department knows what the other is doing, resulting in more and better work being accomplished. Let each man work unprejudiced, always, for the best interests of the company which in the final analysis, are his own interests.

* Presented at December, 1929, meeting of Paper Technologists Club, Kalamazoo, Mich.

[1] Chief chemist, Michigan Paper Company, Plainwell, Mich.

The Manufacture of Waxed Paper

A Survey of U. S. Patents Relating to the Making of Waxed Paper

By Joseph Rossman

Waxed paper is made by two distinct methods. In the first method the wax or paraffin is incorporated with the paper making materials before the sheet is formed. In the second method the finished web of paper is coated with the wax composition by a sizing or coating process. The majority of the patents which have been granted relate to the latter process. A few illustrative examples of each method are given.

The Use Of Paraffin Wax Emulsion

Patent No. 1,367,274 dated Feb. 1, 1921 to Miles describes the preparation of a paraffin wax emulsion to be used with the paper pulp as follows: an ordinary soda tallow soap is made into a paste in three or four times its weight of water. This paste is beaten with melted paraffin wax, maintaining the temperature at the boiling point of water.

In this instance, the proportion of paraffin wax to soap (dry) may be ninety-five to five, though larger percentages of soap may be used. The quantity of water above specified is larger than the critical quantity required to effect the emulsification of the paraffin wax. By continued boiling, the excess of water is driven off until the critical proportion remains behind, when the paraffin wax goes into emulsion. The emulsion thus prepared may be diluted or extended with water, as desired.

Other waxes or waxy materials, such as carnauba wax, stearin, or Japan wax, may be emulsified in the ordinary way, and may be mixed with paraffin wax emulsions, if desired.

A paraffin wax emulsion, formed as described is introduced into the beater with the fiber. In order to correct any hardness of the water, it is desirable to introduce rosin soap into the beater before introducing the paraffin wax emulsion. When the emulsion has been thoroughly incorporated with the fiber, a suitable precipitant, such as alum, is added. The precipitant not only breaks up the wax emulsion, but also precipitates the size—such as rosin soap—upon the fibers. This simultaneous precipitation deposits the wax particles with the size upon the fibers, which thereafter carry both size and wax into the body of the paper web.

Other sizing materials such as glue or starch, may be used or may be mixed with the rosin size.

The characteristic of a true paraffin wax emulsion such as is made by treating paraffin wax by the method described, is that the paraffin exists in the emulsion in the form of very finely divided, suspended, solid particles of paraffin, each of which possesses the physical properties peculiar to a solid paraffin. This condition is distinguished from one in which paraffin having been associated with other substances, such as oils, has become liquid or viscous, possesses a melting point considerably lower than that of paraffin in its essentially pure or natural condition, and is therefore no longer waxy or like paraffin in the true sense of the word.

Using Waste Wax Paper

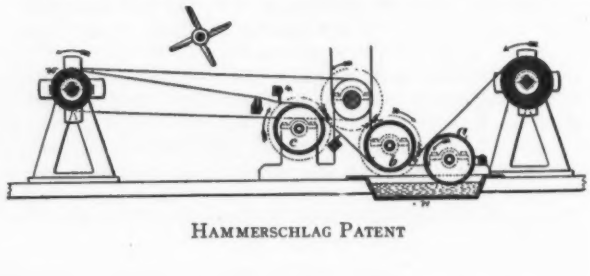
According to patent No. 1,344,620 dated June 29, 1920, to Davidson a quantity of scraps or waste of the heavily coated or saturated waxed papers are mixed with a quantity of waste of the waxed papers carrying a lighter proportion of wax, the mixture being in such proportion to insure having enough waxed fibers in it to impregnate with wax all of the fibers present therein. The mixture is then introduced into a rotary cooker, with just enough water being added to reach all of the individual parts of the mass. The openings to the cooker are then closed and the mass cooked and revolved for a desired length of time, say about five or six hours, under a steam pressure of about thirty to forty pounds to the square inch. The steam is then shut off and the cooker revolved for an additional length of time, for about one or two hours, while the pressure is falling. During the cooking operation the action of the heat, moisture, and pressure softens the fibers and the wax and causes the surplus wax liberated from the mixture and the waxed fibers to be forced into the unwaxed fibers, the agitation imparted to the mass during the rotation of the cooker serving to loosen up and separate the fibers and insure that all of them will be reached to be impregnated with wax. After the cooking operation has been completed, the cooked mass is removed from the cooker, there being practically no waste or free water to carry away any part of the wax, because the mixture was prepared initially in such proportions that the unwaxed fibers of the mixture would carry what wax would be liberated from the heavily waxed fibers, with the result that there is practically no free wax after the cooking operation has been completed. Then follows the usual and well known method of reduction of the cooked mass into pulp and the conversion of the latter into paper or paperboard.

Coating With Paraffin

It has been the practice in making waxed papers and waxed box-boards to apply the wax after the paper or boxboard has been made from a pulp free from wax by either forcing the wax into the paper sheet from the outside thereof, or by applying a coating or layer of wax on the outside. In applying wax in the first method the fibers of the sheet along the exposed surfaces thereof in particular are impregnated with wax, while in waxing the sheet in the second manner the wax is in the form of a layer or coating on the outside of the sheet, with the fibers of the sheet free from wax. In the first case the sheet is said to be saturated with wax, while in the second it is merely coated. Papers saturated with wax are generally used to make bread wrappers, liners, drinking cups, and the like, where a thin stock is required, while papers coated with wax are usually heavier or thicker and are used for making cartons, boxes, and other receptacles for containing butter, bakery products and edibles, or any merchandise required to be packed in moisture proof packages.

The old patents such as 89,095 to Toppan April 20, 1869 used a solution of paraffin in a solvent such as naphtha.

Paper is also coated by simply passing it through a bath of molten paraffin. A machine for doing this is described in patent No. 209,393 dated Oct. 29, 1878 to Hammerschlag. The roller a, revolving in the trough n, is heated by steam introduced into the interior, and the cylinder a is located in relation to the cylinder b and roll of paper in such a manner that the roll of paper is in contact with its periphery for a space of two or three inches in width, and the speed of the paper is different from that of the



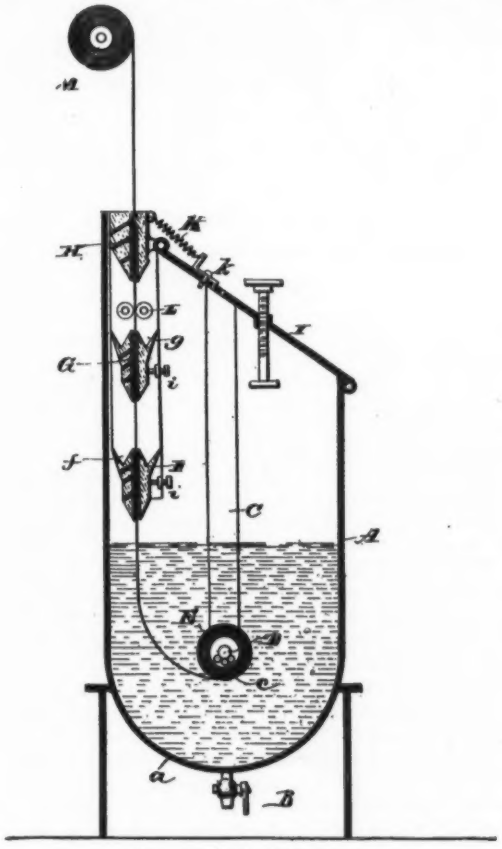
HAMMERSCHLAG PATENT

surface of roller a, in order that, where the paper moves faster than the surface of the roller a, the roller a will spread the paraffin wax in a thin layer upon the paper, because the heated wax is maintained in a fluid condition by the heat of the roller, and the thickness of the layer of wax on the paper to that on the cylinder will be in proportion to the relative speeds of the paper and the roller a; and if the wax is to be applied in greater quantities, the surface speed of the roller a is increased, so as to be greater than that of the roll of paper, and a thicker layer of wax is applied to the sheet of paper.

A fan directs a current of air upon the paper to cool it after the wax has been incorporated into the paper. This fan is shown at x as agitating the air and cooling the paper after it passes from the cylinder c and before it is wound upon the reel w. Two scrapers, 4 and 5 are at opposite sides of the sheet, near the cylinder c, so as to remove any traces of wax upon the surface.

Submerging A Roll Of Paper

The process of patent No. 349,530 dated Sept. 21, 1886 to Sherck and Batig consists in placing a roll or quantity of paper in a tank of melted wax below the surface of the wax, thoroughly impregnating the paper by the application of heat, and stripping and smoothing the surface of the paper before it leaves the tank.



SHERCK & BATIG PATENT

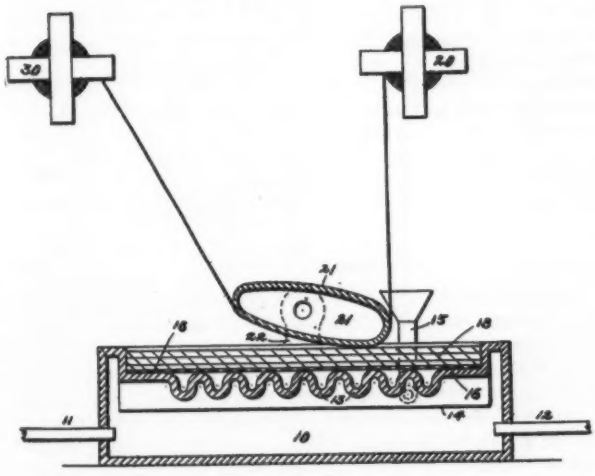
A represents a tank provided with a rounded bottom, a, and supported over a steam box, B, by means of which the wax in the tank is brought to a boiling heat. Within the tank is a pair of depending standards or slings, C, adapted to suspend a shaft, D, on which a roll of paper, E, is slipped, near the bottom of the tank, or below the surface of the wax within the tank. The standards C are provided with ball bearings c, to admit of a free rotary movement of the shaft D, and to prevent wear. The standards or slings C are also adapted to be readily removed from within the tank to adjust a new roll of paper.

Along one side of the tank are strippers or smoothers F, G, and H, arranged in pairs, as shown, having their lower edges beveled to turn the superfluous wax away from the paper, and their upper edges hollowed out, as shown at f and g, to catch the wax which may fall from the strippers located above them, or which may tend to travel downwardly along the sides of the paper and conduct it back into the tank at one end out of engagement with the paper. The upper set of strippers H, is located at the top of the tank, and one of the pair, the one toward the middle of the tank, is hinged to the cover and adapted to be swung away from its mate when the cover is raised. The inner one of each of the other sets of strippers is also removable to admit of the adjustment of a new roll of paper. They may be singly removable, or they may be attached to a removable frame, as shown. They are further provided with means for adjusting them toward and away from their mates to regulate the tension. Set screws i are found convenient for this purpose. The upper inner stripper or smoother is provided with a spiral spring, K, attached to its upper edge and to the cover, the tension of which tends to hold the edge of the smoother in contact with the paper. The tension of the spring K may be varied by means of a pin or screw, k, working in a series of perforations in the cover, or in any other approved manner. The tank is preferably constructed with one side higher than the other, and the cover is hinged to the lower side. One or a pair of set screws are attached to the cover and serve to adjust it up and down, and thereby press the stripper or smoother pad hinged thereto into lighter or closer contact with the paper. A pair of synchronously geared rolls, L, are located within the tank just beneath the upper pair of strippers or smoothers, and serve to draw the paper from the roll through the sets of strippers beneath it. A reel, M, above the tank receives the paper from the upper strippers or smoothers, H.

Passing Sheet Over Absorbent Material

Patent No. 374,025 dated Nov. 29, 1887 to Wilkinson describes a method in which the web of paper is drawn over a blanket that is saturated with heated wax or paraffin. A tank, 10, is used that is heated by steam. The upper face of the tank 10 is corrugated, at 13, and along each side of the tank there is a trough, 14, one of the troughs being fed through a spout, 15. Above the upper corrugated surface of the tank there is placed a perforated sheet of metal, 16, and above the perforated sheet of metal sheets of felt are placed absorbing material, 18.

The paper to be waxed is passed from a reel, 20, under a steam



WILKINSON PATENT

chest, 21, that is egg shaped in cross section, and mounted upon hollow trunnions that are supported by brackets, 22, the steam being led in through the trunnions in the well known manner. The chest 21 is arranged so that its larger end rests upon the upper strata of felt and presses lightly thereupon, and as the paper is drawn forward it will take up a certain amount of wax or paraffin from the felt, and the wax so taken up will be evenly distributed upon the surface of the paper as the paper is pulled along beneath the lower curved surface of the chest 21 to be wound upon the reel 30, which reel 30 is located at a sufficient distance from the chest to allow the paraffin to set or cool upon the web.

The amount of wax that is taken up by the paper may be regulated by varying the thickness of the pile of felt—that is, if a large quantity of wax was to be distributed upon the paper we would employ a thin pile of felt, whereas if only a small quantity of wax was to be distributed upon the web the thickness of the pile would be increased.

Waxed Crepe Paper

Patent No. 670,393 dated Mar. 19, 1901 discloses a process of maxing waxed crepe paper. The paper is first passed through a vat of water and then through a vat of melted paraffin. The paper is then passed between rolls, which move to a suitable extent whatever excess of water and paraffin may have been taken up. The paper is then craped or crinkled in any well known way, after which the paper is dried, thus completing the process.

One effect of the craping operation as it is commonly performed is to break up or at least to disturb more or less the continuity or uniformity of the coating or impregnation of paraffin, and in order to restore that continuity and uniformity the drying operation is conducted at a temperature which is sufficient to melt the paraffin, which then flows sufficiently to restore and renew those portions of the waterproofing which may have been removed, cracked, or otherwise disturbed by the craping operation.

When paper of a moderate thickness is dampened on one side only, or so that the dampness penetrates only part way through the paper, the paraffin when applied to the other side will enter the paper until it reaches or meets the dampened stratum, which checks the further penetration of the paraffin. Therefore in employing this process upon paper which is to be waterproofed only upon one side the depth of the waterproofing may be determined or regulated by regulating the depth to which the paper is dampened prior to applying the waterproofing material.

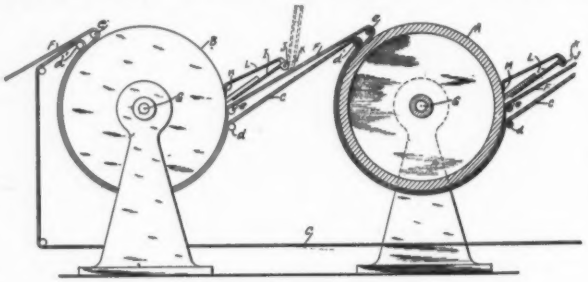
The best results of this process are obtained by keeping the water and the paraffin at a fairly high temperature, so as to avoid chilling the latter before it has become properly incorporated with the paper fabric. Where, the paper is passed through a body of water and a body of paraffin, means are provided for properly and uniformly squeezing out or otherwise removing the surplusage of water and paraffin. This is done by means of rolls between which the paper is passed and which operate to squeeze out the surplusage, means being provided for regulating and maintaining a suitable pressure between the rolls. The paper after passing through the water may pass between one pair of these rolls, then through the paraffin and then through another pair of rolls, or the paper may be passed through water and through paraffin and then through a pair of rolls which squeezes out the surplusage both of water and paraffin at one operation.

The Use Of Solid Wax

The general practice has been to discharge melted wax through a perforated cylinder upon the paper after the process of manufacturing the paper has been completed. This has resulted in an unequal distribution of the wax, it being necessary to wind the paper upon a roll immediately after such a waxing operation and it has been found to frequently adhere to the superposed paper in the roll, whereby it becomes virtually impossible to unwind the roll without tearing portions of the paper which have adhered to other portions beneath it.

In order to obviate these difficulties patent No. 1,167,403 dated Jan. 11, 1916 to Hoberg describes an apparatus having two drying rolls of a paper manufacturing machine of ordinary type, one of the rolls being shown in side elevation and the other in cross section. The intention is based upon the discovery that by waxing the surface of the drying rolls of a paper making machine the wax can be distributed to the paper uniformly and effectively and the heat of the rolls will dry the paper so that it can absorb the wax and be delivered from the rolls in a condition to be wound upon a receiving roll without sticking, the waxed paper being smooth, dry and hard as it comes from the drying rolls.

In the drawing A and B represent two rotary drying rolls of a paper making machine. These rolls in the machine in ordinary use, are located between the press rolls and the calendering rolls; d, d' are guide rolls over which a flexible apron C extends, the apron passing underneath the drying rolls A and B. Other guide rolls e, e' are employed over which the strip of paper F passes, the paper being thus interposed between the apron C and the drying rolls and carried in pressure contact with each of the drying rolls in passing from a roller e to the succeeding roller e'. The



HOBERG PATENT

drying rolls are filled with steam which is delivered thereto through hollow trunnions G.

By applying a cake of wax to one or all of the drying rolls immediately above the point where such roll receives the strip F of peper and surface of the drying roll may be covered with a thin coating of melted wax which, on coming in contact with the paper, immediately penetrates the latter and distributes throughout the tissue, after which the contact of the drying roll with the paper, is sufficiently prolonged to expel any remaining moisture and permit complete absorption of the wax, whereby as the waxed paper leaves the drying roll the paper is firm and the wax hard. By thus simultaneously waxing and drying the paper the moisture in the paper is utilized and the water vapor produced by its evaporation not only prevents the paper from adhering to the drying roll, but also facilitates hardening the wax. The wax is not only pressed into the paper and dried, but it is steamed during the initial stages of the process owing to the vaporization of the water carried by the paper.

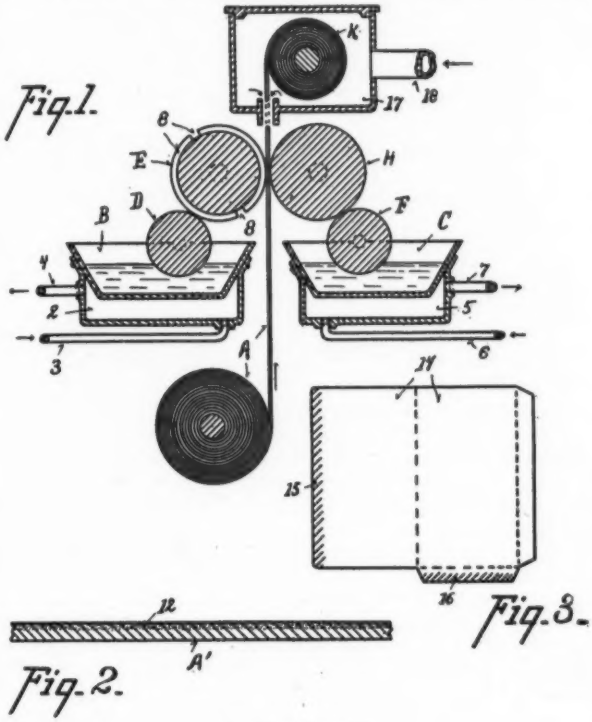
To facilitate applying the wax a pan is used upon which the wax may be supported in a position to slide by gravity against the drying roll A. The cake of wax will have a length equal to the strip of paper to be waxed and will therefore coat the entire surface of the drying roll which contacts with such paper. The pan I is hinged at J and is adapted to oscillate between stops K whereby it may be tilted to the position in which one of the pans is shown in dotted lines, when it is not desired to use the wax.

Coating One Side Of Paper

The process of patent No. 1,203,303 dated Oct. 31, 1916 to Bickett is designed to produce a paper stock for the manufacture of paper containers such as paper sacks, envelopes, pouches and boxes in which the stock is moisture proof on one face while the opposite face is unaffected by moisture proof material and is free to receive printing, writing or adhesive materials. It is also designed to provide paper stock to which the moisture proofing ma-

terial is applied locally to portions only of one face of the stock leaving other portions uncoated to provide laps or joints to be united by adhesive material.

The moisture proofing material employed is paraffin. In order to apply the moisture proofing material to one face of the sheet and prevent it from penetrating through to the opposite face of the sheet, or to prevent it from penetrating too deeply into the fiber of the sheet the heated or fluid paraffin is applied to one face of the sheet and at the same time to the opposite face of the sheet water is applied, and which penetrates from one side into the body of the sheet at substantially the same time that the paraffin penetrates into the sheet from the opposite side. Thus the two materials as they penetrate into the body of the sheet, being immiscible one with the other, each constitutes a barrier, where they meet in the body of the sheet, to the further penetration of the other. The water is heated so as not to have too great a chilling



BICKETT PATENT

effect upon the paraffin, but the temperature of the water may be varied depending upon the weather and other conditions. After the two substances have met in the interior of the sheet and have respectively barred the penetration progress of the other, the paraffin commences to cool and assumes a solid or semi-solid condition while the water quickly vaporizes and disappears leaving the paper stock coated with moisture proof material upon one side only.

A represents a sheet or roll of paper to be treated. B represents a bath containing moisture proofing material preferably paraffin having a heating jacket 2 and pipes 3 and 4 to conduct steam hot water or other heating medium to and from the jacket 2. C represents a bath containing some liquid immiscible with the moisture proofing material, preferably water or a sizing. 5 represents a jacket by means of which the bath C may be maintained at the desired temperature, and 6 and 7 pipes to conduct a heating medium or if desired a cooling medium to and from the jacket 5.

A roller D dips into the bath B and in turn distributes moisture proofing material from the bath to a roller E in contact with one face of the sheet A. The roll E may have a plain or continuous cylindrical face to coat the entire face of the sheet, or it may have recesses 8 in its face so as to leave an uncoated margin along one edge of the sheet, or an uncoated pattern along or across the sheet so that the sheet may be subsequently blanked into box or pouch blanks.

A roller F dips into the bath C and distributes the contents thereof to the face of a roller H which preferably contacts with the opposite face of the sheet at a point substantially opposite the roller E and thus the two materials proceed to penetrate into the body of the sheet from opposite sides at the same time and continue to penetrate until they meet at some point in the interior of the sheet.

The following abstracts give a survey of the methods and apparatus for waxing paper as disclosed in U. S. Patents:

1. GWYNN, 52,788. FEBRUARY 20, 1866.
   Paper is saturated with paraffine, melted and heated to a high degree.
2. BECK, 60,672. JANUARY 1, 1867.
   Paper treated with stearic acid.
3. TOPPAN, 89,095. APRIL 20, 1869.
   Paper treated with paraffine in solution.
4. STENHOUSE, 97,983. DECEMBER 14, 1869.
   Paraffine is applied by means of a metal plate, heated to 130 degrees F. to stretched paper.
5. ORTH, 161,350. MARCH 30, 1875.
   Tissue-paper coated with a compound of rubber and wax, and tinted in various colors previous to the application of such compound.
6. HAMMERSCHLAG, 193,867. AUGUST 7, 1877. REISSUE 8,460. OCTOBER 22, 1878.
   The method consists in spreading the wax upon the surface, heating the paper from the opposite side to spread and fuse the wax into the fabric of the paper, removing the surplus wax, and remelting and polishing the wax upon the paper.
7. SAWYER, 204,098. MAY 21, 1878.
   The method consists in coating paper with melted paraffine, then treating it with pulverized talc.
8. HAMMERSCHLAG, 209,393. OCTOBER 29, 1878.
   The method consists in drawing the paper over the surface of a cylinder coated with melted wax at a speed different to the movement of the surface of the cylinder, so as to regulate the thickness of the layer of wax by the relative speed of the paper to that of the surface of the waxed cylinder.
9. HAMMERSCHLAG, 217,280. JULY 8, 1879.
   An apparatus for waxing paper having a trough for the melted wax, a pair of pressure-rollers between which the paper is passed, and heated pipes over which the waxed paper is drawn.
10. FRENCH, 218,120. AUGUST 5, 1879.
    Devices for printing upon and treating paper with paraffin, all by one continuous process.
11. JOHNSON, 229,045. JUNE 22, 1880.
    The combination of a compound of rubber and either paraffin or Japan wax with and between two sheets of unsized paper.
12. BASTET, 229,798. JULY 13, 1880.
    A paper-waxing machine having a waxing-trough and heated smoothing, glazing, and drying table.
13. RICH, 233,383. OCTOBER 12, 1880.
    In an apparatus for preparing waxed paper, the combination of a tank in which the wax is melted, an apron and a heating device for heating the paper prior to its passage beneath the apron.
14. BEDFORD, 243,353. JUNE 28, 1881.
    A machine having rollers for pressing and smoothing the paper coated with wax, a trough containing coating substance, and a sheet of felt suspended in the trough and beneath the roller, and bearing with its upper edge against the surface of the paper being coated.
15. BEDFORD, 254,105. FEBRUARY 28, 1882.
    The process of making waxed paper, consists in heating the

paper before it is waxed, supplying the paraffin to the paper in thin films, at points above the mass or body of paraffin, by having it pass through felt rubbers or feeders by capillary attraction, and reheating the paper and wax thereon, and simultaneously rubbing the thin films of paraffine into the traveling heated paper.

16. Ridgway, 257,761. May 9, 1882.

The method consists in applying a block of paraffin to the surface of the paper under pressure while the paper is in motion.

17. Bedford, 273,013. February 27, 1883.

The method consists in first passing the paper over heating and waxing rollers confined in a heated chamber, and then suddenly cooling it by passing it directly from the heated chamber into a chamber of low temperature.

18. Duke, 286,403. October 9, 1883.

The method consists in melting paraffin, percolating it upon a heated metallic surface, upon which it is diffused, and laying the end of the paper sheet upon the surface, whereby it is coated with the melted material.

19. Frasch, 304,309. September 2, 1884.

Paper is waxed by rubbing the paper against the side of a wick or capillary conductor whose end dips into the melted wax and applying it to the paper, the rubbing area being greater than the cross section of the wick.

20. Jowitt, 318,911. May 26, 1885.

The method consists in passing a web of paper in contact with melted wax, and thence in contact with smooth cold surfaces, whereby the wax is simultaneously hardened and burnished.

21. Sparks, 326,687. September 22, 1885.

An apparatus for preparing waxed paper having a tank for containing the hot wax, a device within the tank for simultaneously conducting both sides of the paper into contact with the hot wax, and heating scraper-frames with hot blades arranged above the tank for simultaneously heating the waxed paper on both sides and also scraping the waxed paper on both sides during the passage between the scraper frames.

22. Sparks, 326,688. September 22, 1885.

An apparatus for waxing paper consisting of two or more wax-holding tanks having wax-supplying brushes projecting through their sides and adapted to cover with wax both sides of the paper web when drawn between the brushes.

23. Sparks, 326,689. September 22, 1885.

The process of waxing paper consists in drawing the paper beneath a heated blanket which is charged with wax or paraffin.

24. Howe, 329,743. November 3, 1885.

The process consists in immersing the paper article in melted paraffin when the article is at a temperature lower than the melting point of the paraffin so as to form a film upon its surface, and then subjecting the article thus coated to heat.

25. Gestetner, 332,890. December 22, 1885.

A sheet of transfer paper consisting of a sheet of bamboo fiber paper on one surface of which a layer of wax or paraffin is fixed.

26. Miller and Newman, 340,810. April 27, 1886.

The method consists in applying wax to the paper while the latter is in an unfinished condition, and finishing the paper.

27. Sparks, 343,345. June 8, 1886.

The method consists in passing the web into the liquid material, allowing it to become saturated or coated with the material, then carrying the web forward through a slit, allowing only the requisite amount of material to adhere to the paper during its passage from the liquid in the tank.

28. Howe, 343,375. June 8, 1886.

The method consists in applying melted paraffin to a mass of paper consisting of multifold thicknesses or layers held in contact with each other, and thereafter separating the layers and applying heat to the layers after they are separated.

29. Sparks, 344,142. June 22, 1886.

In a machine for waxing paper, a blanket charged with wax under which the paper to be waxed or coated is drawn.

30. Howe and Knowlton, 344,965. July 6, 1886.

The method of making paraffined paper in continuous lengths consists in continuously applying melted paraffin to one or more webs of paper, and rolling the paper thus paraffined into a compact mass or roll together with webs of unparaffined paper and applying heat to the mass or roll.

31. Spalding, 345,003. July 6, 1886.

The combination, with the winding drum of a paper waxing machine, of clamps adapted to bear upon the drum in lines parallel with the axis, and cutters or knives set in grooves in the drum and adapted to be drawn through the paper when wound thereon, so as to cut it into sheets.

32. Sherck and Batig, 345,864. July 20, 1886.

In apparatus for waxing paper, the combination, with a porous slab and means for keeping it at the desired temperature of a vertically adjustable bunch of capillary tubes leading from a well beneath the slab or slabs to a point above their upper surface.

33. Sherck and Batig, 346,869. August 3, 1886.

The combination, with a wax supply reservoir, of a paper support having an adjustable section for increasing or diminishing the feed.

34. Sherck and Batig, 346,870. August 3, 1886.

A waxing cylinder provided with perforations in its shell and adapted to feed wax through the perforations by centrifugal force.

35. Sherck and Batig, 349,530. September 21, 1886.

The method consists in placing a quantity of paper in melted wax, incorporating the wax with the paper by heating the wax and finishing the surface of the paper within the tank of wax.

36. Sherck and Batig, 349,531. September 21, 1886.

The combination, with the wax holding tank and means for applying heat thereto, of a roller or rod adapted to hold a roll or bunch of paper beneath the surface of the wax and in a condition to be readily unwound and strippers or smoothers located within the tank for finishing the paper.

37. Dingman, 351,748. November 2, 1886.

The combination of the trough having heat applied to it, the distributing cylinder suitably driven, the heated cylinder driven by contact with the other cylinder, and the pressure roller driven by contact with the first cylinder, and adapted for regulating the pressure.

38. Chester, 353,122. November 23, 1886.

The method consists in first soaking the paper in a solution of wax, then exposing it to an evaporating blast in an air tight chamber, and finally passing it through a tank of water.

39. Chester, 360,373. March 29, 1887.

A waxing machine consisting of several hermetically closed chambers, one containing a tank of wax in solution or liquid state, one provided with a hot evaporating blast and its accessories, and one with a tank of cooling liquid, of a series of guiding rollers so placed in the evaporating chamber as to compel the material subjected to the process to pass many times backward and forward through the evaporating chamber in close proximity to the hot blast before it is plunged in the cooling liquid.

40. Sherck and Batig, 362,547. May 10, 1887.

A machine having a sprayer and a reservoir for supplying melted wax to the sprayer or sprayers, a metallic plate in front of the sprayer and means for regulating the flow of the wax.

41. Wilkinson, 365,213. June 21, 1887.

In an apparatus for waxing paper, the combination, with a box provided with steam pipes and having an upper depressed and corrugated surface, of a perforated plate, and felt sheets.

42. Andrews, 367,886. August 9, 1887.

In an apparatus for paraffining paper, a traveling belt upon which paper is laid, combined with a cylinder located above the belt and adapted to apply paraffin to the paper and with gearing to revolve the belt and rotate the cylinder.

43. Elias, 372,408. November 1, 1887.

A compound paper consisting of an outer layer of waxed paper,

a middle layer of foil, and a third or under layer of common paper for preserving the middle layer of foil.

44. Wilkinson, 374,025. November 29, 1887.

The process consists in drawing the web between a steam chest and a material saturated with heated wax, and then passing the coated web over the surface of the chest out of contact with the saturated material to calender it.

45. Haynes, 394,268. December 11, 1888.

A machine for waxing paper having an exhaust fan with drying and heating chambers, a tank and polishing rolls within the chamber.

46. Anderson, 395,645. January 1, 1889.

The method consists in heating the paper and applying wax to one side then subjecting the paper to heat and pressure, and finally cooling and pressing it.

47. Hodkinson and Raymond, 396,402. January 22, 1889.

A machine having a set of standards, rollers journaled therein, and drip-pans located in position to catch the superfluous coating material, and web and metallic belts carried on the rollers, wax troughs, the latter each having a mouth in its bottom, a fibrous filling in the mouth, and an adjusting screw for opening and closing the mouth.

48. Anderson, 404,151. May 28, 1889.

In a paper waxing and cutting machine, the combination, with the waxing rollers and table, means to draw the paper thereover, the cooling tube, the rotating knife located in rear of the cooling tube, and the rollers arranged adjacent the knife and provided with cutting blades, the cooling tube projecting over the table to a point in front of and in line with the rotating knife, considered with respect to the direction of the travel of the paper.

49. Sparks, 410,810. September 10, 1889.

A mechanism for waxing paper, consisting of the following elements: a tank for the wax, a takeup device moving in contact with the wax, a delivering roller moving in contact with the takeup device, and means for imparting independent velocities respectively to the takeup device, and to the delivering roller.

50. Miller and Newman, 413,286. October 22, 1889.

In a paper machine having means for applying waterproofing material to the web of paper, hot calender rolls and doctors inclined toward one or both ends.

51. Watts and Henry, 428,190. May 20, 1890.

A waxing machine comprising a waxing cylinder formed with peripheral grooves, a wax trough, a friction cylinder covered with soft material, a weighted lever to keep the friction cylinder in position, a series of curved guide wires, an apron, an inclined frame adapted to carry the takeoff roller, and a friction roller to operate the takeoff roller.

52. Howe, 437,435. September 30, 1890.

The method consists in transferring liquid paraffin from a surface or roller coated therewith by passing the material under pressure and at a speed not less than one hundred and fifty or more than two hundred and fifty feet per minute over the surface or roller when the surface or roller and the paraffin thereon are at a temperature near the melting point of the paraffin and when the material is at such temperature lower than the melting point of the paraffin that it will chill the paraffin and thus prevent the latter from being absorbed by the material.

53. Newman, 453,090. May 26, 1891.

A machine having a calender roll and a reel, the coating devices arranged between the rolls and reel, and vertically adjustable guides arranged to straighten the paper on the coating devices.

54. Hill, 474,013. May 3, 1892.

The method consists in melting the wax upon the top of water, revolving a roller in the wax and the water, and passing the counter in contact with the roller.

55. Bliss and Erwin, 513,030. January 16, 1894.

A machine for waxing paper having a vat or pan, a hollow roll, carrying rolls and an adjustable pressure and calender roll.

56. Howe, 524,024. August 7, 1894.

Paper or strawboard having its surface fibers saturated with silicate of soda, and provided on its surface with a coating of paraffin.

57. Reynolds, 559,605. May 5, 1896.

A machine for paraffining paper having pressure rolls mounted in suitable standards and a receptacle for liquid paraffin within which one of the rolls is partly submerged, a pan secured near the contacting surface of the rolls, to catch the surplus liquid through which the sheets are fed to the rolls.

58. Macbrair, 606,869. July 5, 1898.

In an apparatus for coating paper a support over which the paper is passed, a carriage movable toward and away from the support, a brush on the carriage arranged to contact with the fabric passed over the support, means for holding a supply of paraffin on the carriage for movement in contact with the brush and means to feed the supply toward the brush.

59. Springer and Johnson, 645,496. March 13, 1900.

A machine comprising a tank, suitably supported, in combination with downwardly-curved guides in the tank, the driving rolls provided with depending bearings or hangers, wringing or wiping rolls, means for driving the rolls, and the scrapers.

60. Wells and Mullen, 668,301. February 19, 1901.

A machine having a primary roll, an intermediate roll, around and between which two rolls and in direct contact with both rolls at the meeting line a sheet of paper is passed to be waxed, and a wax applying roll between which and the intermediate roll and in direct contact with both rolls at the meeting line the sheet or strip of paper passes for receiving its coat of wax.

61. Arkell, 670,393. March 19, 1901.

The process consists in conveying the paper through water, then conveying it through melted paraffin, then removing the excess of water and paraffin, then craping the paper, and then drying the paper at a temperature sufficient to melt the paraffin and expel the water.

62. Norris and Vavra, 677,320. June 25, 1901.

The method consists in immersing the paper in a bath of paraffin, immersing the paper in a liquid chilling bath immediately after it has been removed from the paraffin bath, the interval between the removal of the paper from the paraffin bath and its immersion into the chilling bath being so short that the paraffin will be set before it has been appreciably absorbed by the paper, whereby the paraffin adheres to the paper as a relatively thick, smooth and glossy coating, and the paper being passed through the paraffin bath without being subjected to pressure against rollers or guiding surfaces of a nature acting to disturb or displace the coating thereon.

63. Little, 691,952. January 28, 1902.

A mixture of coating paper consisting of an emulsion of paraffin and viscose.

64. Bird, 694,522. March 4, 1902.

A lining material which consists of outer layers of unsized paper; an intermediate layer of asphalt intimately uniting the inner surfaces of the outer layers and partially impregnating the pores thereof; and paraffin saturating the outer layers.

65. Hoyt, 728,234. May 19, 1903.

A fabric coated with a high test paraffin mixed with an essential oil.

66. Carrier, 737,826. September 1, 1903.

A machine for applying paraffin to paper comprising a receptacle adapted to contain a paraffin bath, coacting rollers between which the paper is adapted to pass, one of which rollers is adapted to dip into the bath to carry the paraffin to the paper and is arranged to leave on the strip of paper, parallel with the margin of the paper, an unparaffined strip or area, a transverse shaft for carrying a roll of paper, means for shifting the shaft transversely of the machine to guide the paper, and a guide roller between the shaft and the paraffin roller provided with guide projections between which the strip of paper passes.

TAPPI Section, Page 48

67. Pratt, 743,031. November 3, 1903.

Insulation material composed of a body of leather-pulp having sulfite wood pulp mixed therewith and impregnated with mineral wax, rosin and alum.

68. Eckstein, 772,406. October 18, 1904.

The method consists in assembling the flats together side by side in a pile, submerging the pile within a bath of melted wax until the flats are thoroughly saturated, and while still confined in a pile, after removing from the bath, disposing the flats so as to drain them edgewise and distribute and eliminate the surplus wax through aid of the residual heat confined by the close pile.

69. Ladewig, 778,049. December 20, 1904.

In a paraffining apparatus, the combination of a single tank for holding melted paraffin having a funnel guide projecting upwardly thereinto and opening through the bottom thereof, and paraffin applying rollers rotatably held above the upper edge of the tank and projecting into the latter, the one roller being individually adjustable longitudinally toward the other, the upper end of the funnel guide being in line with the connecting surfaces of the rollers.

70. Arkell, 790,022. May 16, 1905.

In a machine for making stretchable crinkled paper, the combination of a smooth faced receiving roll adapted to have the paper deposited thereon; a doctor associated with the roll and against which the paper is carried on the roll for crinkling; and a receptacle containing a bath through which the paper passes before it reaches the doctor.

71. Eckstein, 856,853. June 11, 1907.

The method consists in immersing collapsed cartons in a bath of melted wax to impregnate the body of the carton, withdrawing the collapsed cartons from the bath and finally opening out the cartons into a tubular form before the wax has time to set.

72. Hilbert, 873,126. December 10, 1907.

A machine having upper and lower trays, transfer rolls cooperating with the trays, drawing rollers, a spindle for holding a web of paper, slatted guiding rollers between the spindle for holding the web of paper and drawing rollers, and between the latter and the transfer rolls, heated distributing rollers, and cooling means for treating the web of paper after it leaves the heated distributing rollers.

73. Harrington, 915,672. March 16, 1909.

An apparatus having a tank for containing a fluid saturating composition, means for leading a web of paper into and through the fluid composition, in the tank, means for applying a fluid waxy composition upon the paper so treated at the point where it issues from the saturating composition in the tank.

74. Gueniffet and Nicault, 921,204. May 11, 1909.

The method of applying a coating of melted paraffin to paper cigarette tubes, consists in carrying the melted paraffin upon a distributer, and rolling the tubes upon the distributer with a plurality of tubes at different points thereof simultaneously, the melted paraffin being carried on the distributer in such quantity as to completely coat the tubes during the simultaneous rolling of them over the distributer under slight pressure.

75. Pulsifer, 956,602. May 3, 1910.

A machine for paraffinizing paper having a coating material bath, a movable surface dipping therein, a surface for dispersing the material and a surface for chilling it, means for guiding and drawing a web of paper over the surfaces successively to apply the material, impregnate the fibers of the papers therewith while in the liquid condition and then convert it into a solid state and devices for distributing the coating material as the web passes over the dispersing surface.

76. Gage, 1,007,086. October 31, 1911.

The process consists in completely immersing the container in its permanent form in a bath of moisture repellant material in fused condition, to coat the entire surface of the container, removing the coated container before impregnation by the coating material, and immediately chilling the container while its coating is in fused condition, to thereby harden it and provide the entire surface of the container with a smooth, enamel-like and continuous coating impervious to moisture.

77. Crabb, 1,037,873. September 10, 1912.

A machine having a liquid bath, a set of drying rolls, a sheet carrier for conveying the sheets from the bath to the drying rolls and means for heating the liquid bath.

78. Twomley, 1,045,222. November 26, 1912.

In a machine for applying paraffin to a carton, a pair of rolls, a scraper for removing wax from one of the rolls, and means for heating the scraper.

79. Harrington, 1,063,441. June 3, 1913.

The process consists in first leading the paper into and through a heated liquid composition comprising a glutinous material and glycerin to fill the pores and interstices thereof immediately thereafter leading the paper so treated through the waxing composition whereby the heat of the glutinous material assists in spreading the waxing composition upon the surface of the paper.

80. Bird and Wyman, 1,074,829. October 7, 1913.

A composite and rigid board comprising a plurality of sheets of paper secured to one another by a suitable adhesive and charged within the fibers thereof with an amount of moisture approximating ten per cent by weight, the board being exteriorly waterproofed with paraffin.

81. Thomas, 1,112,397. September 29, 1914.

Paper impregnated with chlorinated stearic acid.

82. Mackintosh, 1,113,904. October 13, 1914.

Waxed paper for wrapping taffee to which is applied an additional or extra flavor corresponding with the flavor of the article to be wrapped as will disguise the paraffin or wax flavor and prevent absorption of flavor from the article by the wrapper.

83. Clyne, 1,135,356. April 13, 1915.

The process of treating paper-tubes consists in submerging them in a volatile liquid until softened and impregnated thereby and immediately submerging them in liquid paraffin for twenty to forty minutes and at a temperature of from 130 to 200 degrees F. whereby the volatile liquid is volatilized.

84. Carter, 1,140,873. May 25, 1915.

The method of making waxed paper consists in causing the paper to travel in the direction of its length, first through a bath of heated wax and then through a water bath, and subjecting the paper, after it leaves the water bath, to the action of a blast of air in a direction opposite the direction of movement of the paper.

85. Beadle, 1,154,282. September 21, 1915.

The process of coating paper vessels, consists in subjecting the vessels to heat to drive out a portion of the contained moisture and to shrink the vessels; then subjecting the vessels to a liquid coating bath; draining the vessels of their surplus liquid; rotating the vessels on their axes during the draining operation to secure an even coating; and only partially immersing the vessels in a water bath while rotating the vessels on their axes to impart a smooth surface.

86. Hoberg, 1,167,403. January 11, 1916.

The process of waxing paper consists in applying wax to the paper during the manufacture thereof and during the final drying operation, and simultaneously spreading the wax and compressing the wax and the paper under the influence of heat and for a sufficient period to expel the moisture and simultaneously effect absorption of the wax.

87. Frisch and Miessler, 1,168,254. January 11, 1916.

A wrapper for baked commodities comprising a sheet of tissue provided with a plurality of alternate bands treated with paraffin.

88. Ramsey, 1,171,461. February 15, 1916.

A wrapping paper for bread comprising alternate strips of waxed and unwaxed areas in such relative proportions as to secure the desired ventilation.

89. VAVRA, 1,198,976. SEPTEMBER 19, 1916.

A coating machine comprising a pair of contacting rollers, one of which rollers has its upper side located in a plane approximately that of the level of the coating material, and means for simultaneously rotating the rollers in opposite directions, whereby the coating material is prevented from overflowing the rollers, and their surfaces above their point of contact is utilized to gage the thickness of the coating adhering to the articles passing from contact with the rollers.

90. BICKETT, 1,203,303. OCTOBER 31, 1916.

The method comprises applying to certain portions of one face of a sheet of paper leaving other portions of the same face uncoated with moisture proof material, at substantially the same time applying a fluid immiscible with the moisture proof material to the opposite face of the sheet, and subsequently subjecting the sheet to a drying operation at a temperature lower than the melting point of the moisture proof material.

91. PETERSON, 1,217,819. FEBRUARY 27, 1917.

A paraffin coated sheet comprising a layer of flexible sheet material, a second superimposed layer of sheet material united thereto by a film of cementitious material with the flexibility of the sheets substantially maintained, one of the layers being impregnated with paraffin, the film of cementitious material serving as a barrier to prevent the paraffin from penetrating the non-impregnated layer, and a protecting tissue sheet attached to and overlying the outer face of the paraffin impregnated layer.

92. LABOMBARDE, 1,218,419. MARCH 6, 1917.

The object of the invention is to provide a machine for the rapid treatment of the blanks while in flat form, leaving one surface of one edge and the opposite surface of another edge untreated or uncoated, so that ordinary adhesive can be employed later for securing the two uncoated surfaces together, when the blanks are run through folding machines to convert them to carton form. Another object is to provide improved means for insuring a constant and proper supply of melted paraffin.

93. MILES, 1,228,580. JUNE 5, 1917.

The method consists in mixing with the fiber in the beater an emulsion of paraffin wax with a proportion of filler in excess of that which in the absence of the emulsion will incorporate with the fiber.

94. EISING, 1,234,315. JULY 24, 1917.

The process consists in reducing the stock to fibrous condition, simultaneously washing the stock, adding to the washed stock compounds of wax like materials, stearic acid and borax and soap, rosin and wax like substances, and then precipitating such compounds upon the fibers of the stock.

95. GUTBERLET, 1,245,100. OCTOBER 30, 1917.

The window envelopes are treated with a heavy oil with a paraffin base.

96. SUTHERLAND, 1,276,439. AUGUST 20, 1918.

A coating machine having a tank, pairs of rollers disposed so that the upper rollers are entirely above the surface of the liquid and the lower roller of each pair dips into the liquid in the tank, the points of contact of the rollers being a substantial distance above the surface of the liquid so that the coating material is applied to the upper rollers only through their contact with the lower, longitudinal spaced guide bars disposed above the surface of the liquid between the pairs of rollers.

97. MAYER, 1,288,642. DECEMBER 24, 1918.

A saturating machine having a heated drum over which the web travels, and a combined liquid applying and buffing roll traveling in contact with the web on the drum.

98. SCOTT, 1,299,388. APRIL 1, 1919.

A coating machine having means to coat a web of paper with heated wax, means to finish and polish the coating and a water bath arranged to harden the finished coating, guiding means arranged to carry the web vertically upward from the water bath, and devices to prevent the passage of globules of water with the web beyond a predetermined point in its vertical travel, all constructed and arranged so that the water adhering to each side of the web may fall therefrom by gravity.

99. GASCARD, 1,315,925. SEPTEMBER 9, 1919.

A machine for waxing sheets of cigarette paper, comprising a rotary cylinder, a blanket of yielding material, adapted to convey the sheet to be waxed and provide a yielding supporting surface behind the latter during the waxing operation, an waxing rollers adjustably mounted and rotating with a peripheral velocity greater than that of the cylinder and exercising friction on the sheet of paper and simultaneously applying the wax.

100. VAVRA, 1,327,300. JANUARY 6, 1920.

An apparatus having a pair of gaging rolls having perforations in their metallic shells and an external fibrous covering, means for pressing the rolls into engagement with each other, means for rotating the rolls, and means for supplying the interior of the rolls with the coating liquid.

101. LOW, 1,336,528. APRIL 13, 1920.

The process consists in immersing the paper board in a bath of hot paraffin subjecting the coated sheet in the bath to pressure between hard rotating surfaces to drive off excess paraffin and to force the material into the body of the sheet; subjecting the coated sheet outside of the bath to pressure between rolling cushioned surfaces; immersing the coated sheet in a chilling bath, and finally subjecting the chilled sheet to pressure between hard rotating surfaces.

102. DAVIDSON, 1,344,620. JUNE 29, 1920.

The process consists in mixing together enough heavily coated or saturated waxed papers with those carrying a lighter proportion of the wax to have enough waxed fibers to impregnate with the wax liberated from the waxed portions of the paper substantially all the unwaxed fibers that may be present in the mixture, adding enough water to reach all parts of the mixture, and cooking and agitating the mixture in a rotary cooker under a steam pressure of approximately thirty or forty pounds to the square inch.

103. DAVIDSON, 1,347,619. JULY 27, 1920.

The method of making a paper sheet having a plurality of plies, consisting in making at least one of the plies from pulp having substantially all the fibers thereof impregnated with wax, and the remaining plies from pulp having non-waxed fibers.

104. MILES, 1,367,274. FEBRUARY 1, 1921.

The method consists in introducing an emulsion of solid particles of unmodified paraffin wax with a size into the water vehicle in which the paper fiber is distributed at a stage in the progress of the fiber in advance of formation of the paper web, thereafter precipitating the size on the fiber with the paraffin wax, thus incorporating the paraffin wax with the fiber and finally into the paper web.

105. DECKER AND VAN SLUYS, 1,385,042. JULY 19, 1921.

The method comprises first coating the paper with heated wax, then finishing the surface, then setting the wax by subjecting it to the action of a water bath and then removing the water by suction.

106. SEVIGNE, 1,399,160. DECEMBER 6, 1921.

Means for waxing paper, comprising a trough having a roll mounted therein, an extended curved stationary iron for the paper after it leaves the roll means for supplying the trough with wax, means for drawing the paper over the roll, and means for positively rotating the roll at a predetermined speed relatively to the speed of travel of the paper.

107. KICK, 1,408,746. MARCH 7, 1922.

The process of uniting waxed paper consists of applying a coating of adhesive to the portions to be united, placing the coated surfaces into contact and thereafter applying sufficient heat to the portions to melt the wax and sufficient pressure to hold the portion securely in contact until the adhesive has set, thereafter retaining pressure without heat until the wax has congealed.

108. Carter, 1,429,928. September 26, 1922.

The method of waxing paper consists in passing it through heated wax, squeezing the surplus wax therefrom, polishing the surface while still hot, and then immediately chilling the wax to harden it by contact with a chilled surface moving in the same direction as the paper to avoid disturbing the polished surface.

109. Martin, 1,439,183. December 19, 1922.

A paper waxing machine having a wax immersion tank, a relatively large waxing roll partially immersed in the tank, a superposed squeeze roll of the same size as the waxing roll, an immersion roll adapted for guiding the web of paper through the immersion tank, a first preheating roll over which the web is drawn to the immersion roll, and a second preheating roll over which the web is drawn when being fed directly to the waxing and squeeze rolls.

110. Clapp, 1,468,959. September 25, 1923.

A process of making waterproof paper comprises beating finely divided Montan wax into a pulpy mass of cellulose fiber containing finely divided calcium hydroxide, adding a precipitating agent, forming the pulpy mass into a sheet or web, drying the sheet at a temperature sufficient to flux the contained Montan wax, and finally calendering the sheet to glaze the surface thereof.

111. Castner, 1,499,291. June 24, 1924.

The method consists in commingling sulphite wood pulp with approximately ten per cent of paraffin and water, thereafter adding additional water to the mass and thoroughly agitating the mass, adding further water, and then forming the mixture into sheets, drying the sheets in a moist atmosphere, and subjecting the sheets to pressure.

112. Wandel, 1,534,622. April 21, 1925.

The method consists in causing adherence of a wax coated paper web to a crinkling drum of air suction, drawing the paper thereby from a supply roll through a coating station, and clearing the adherent paper from the drum by a doctor to crinkle it.

113. Labombarde, 1,536,801. May 5, 1925.

The method of preparing waxed paper blanks for conversion into moisture proof boxes, consisting in subjecting single surfaces of marginal portions of the waxed blanks to the action of heat, and then immediately immersing the blanks in cold water.

114. Pohl, 1,539,952. June 2, 1925.

A machine comprising a frame, a large operating roller rotatably mounted therein, a fixed bearing therefor, a second large operating roller adjustably mounted on the frame and two rotatable smaller rollers, one cooperating with each of the smaller rollers, the smaller rollers being engraved so that alternating glazed and dull stripes can be produced in the paper.

115. Cambell, 1,589,106. June 15, 1926.

Meat wrapping paper, consisting of paper treated upon one side with pyroligneous acid and upon the opposite side with paraffin.

116. Clapp, 1,592,294. July 13, 1926.

The method comprises melting paraffin and dispersing agent, adding the melted mass to a hot aqueous solution and thoroughly mixing therewith, rapidly chilling the mixture below the melting point of the paraffin while continuing the agitation to solidify the paraffin and dispersing agent in dispersed condition, adding the product to fibrous beater stock, precipitating the dispersed material on the fibers, sheeting on a paper machine, and subjecting the sheet to a temperature above the melting point of the paraffin and dispersing agent whereby they are fluxed and coalesced throughout the sheet.

117. Gannon, Mahle and Wells, 1,606,162. November 9, 1926.

A process of making paper, which consists in depositing a layer of pergameneous paper stock comprising sulphite pulp stock prepared to form a grease-proof material, depositing thereon paper stock for forming the body of the paper, and thereafter expressing the surplus moisture from the thus combined stock in a direction away from the layer of pergameneous stock and through the body-forming stock.

118. Gannon, Mahle and Wells, 1,606,163. November 9, 1926.

Paper having incorporated in it a layer of grease-proof material formed of pure sulphite pulp stock deposited therein during the paper making process and forming an integral part thereof.

119. Ellis, 1,607,517. November 16, 1926.

The process consists in the addition of an aqueous wax dispersion to a pulp containing hydrocellulose, in a beater engine, at a temperature of approximately 80 to 100 degrees C.

120. Ellis, 1,607,518. November 16, 1926.

The process consists in bringing the pulp to a pH value of between 1.5 to 7, and incorporating therewith a colloidal dispersion of a wax and a size.

121. Ellis, 1,607,519. November 16, 1926.

The process comprises incorporating with the paper pulp prior to its formation into sheet form a quantity of rosin size, setting the size and incorporating wax dispersion.

122. Maze, 1,607,552. November 16, 1926.

The process comprises treating paper pulp containing hydrocellulose, with an emulsion containing paraffin wax, allowing the dispersed wax to react with the hydrocellulose and thereafter forming the pulp into sheet form.

123. Brown 1,614,869. January 18, 1927.

The method of treating pasteboard sheet comprises the melting of Montan wax within a closed receptacle and maintaining it at a temperature of about two hundred and fifty degrees F., the wax being solid at normal atmospheric temperature and pressure and of a character such that when pasteboard sheets are impregnated therewith they are rendered practically impervious to oil and water, placing the sheets within the molten wax and retailing them therein for a period of time sufficient to effect impregnation thereof, removing the sheets from the molten wax to a position within the receptacle above the top level of the wax and maintaining the same in such position until they have completely dried, and thereafter placing them in a solution of washing soda.

124. Fleming 1,616,849. February 8, 1927.

Paper saturated with a composition comprising approximately eight parts of paraffin to three parts of petrolatum.

125. Carter 1,616,963. February 8, 1927.

The method of producing wrapping material, consists in coating paper with wax and then subjecting the material to the action of design forming devices contacting with wax crushing pressure against the coating.

126. Blum 1,618,799. February 22, 1927.

Machines embodying the features of the present invention cause the wax to penetrate into the very heart of the fiber board so as to give a very perfect impregnation throughout substantially the entire thickness thereof.

127. Flockhart 1,619,925. March 8, 1927.

A machine comprising an endless apron, several laterally moveable carriers, springs for the support of the carriers, a roll on each side of each carrier, spings for supporting the rolls, and means to move a cloth under each carrier.

128. Finley 1,641,479. September 6. 1927.

The method comprises applying an aqueous solution of sodium chloride, saccharose, starch glucose and sodium boarte and subsequently coating the surface with paraffin.

129. Coolidge 1,648,294. November 8, 1927.

The process consists in forcing Montan wax dissolved in a solvent into the pores of the paper, and allowing the solvent to evaporate.

130. Coolidge 1,648,295. November 8, 1927.

The process consists in impregnating fibreboard with a preservative, and then sealing the preservative by impregnating the outer strata thereof for a considerable depth with a waxy material which remains hard and non-tacky at high atmospheric temperature.

131. NUNEZ 1,669,381. MAY 8, 1928.

A duplex waxing machine comprising supports for a pair of supply rolls, a wax pan, guide rolls for directing two webs independently and apart from each other through wax in the pan, squeeze rolls for acting on the webs after leaving the pan, independent cold rolls for the two webs, and a winder for each of the webs.

132. LABOMBARDE, 1,681,350. AUGUST 21, 1928.

The method consists in flooding the paper with an indeterminate quantity of melted wax in free motion, without subjecting the paper to immersion in the wax, removing surplus wax from both surfaces of the paper, and cooling the wax before it is absorbed by the paper.

133. HANS, 1,685,917. OCTOBER 2, 1928.

The process consists in introducing into and incorporating with the pulp only a part of the coloring matter required for the predetermined color tone and but part of the required sizing material, and in applying to the surface of the advancing paper sheet, after it has been dried out but before it has been calendered, a solution containing color and an emulsion of paraffin.

134. CLAPP, 1,706,841. MARCH 26, 1929.

The process comprises incorporating into pulp prior to its formation into paper, glue and aqueous dispersion of paraffin, and a substantial quantity of sodium silicate, and adding aluminum sulphate in sufficient quantity to precipitate the precipitable material, thereby producing a voluminous precipitate of aluminum silicate and fixing the glue and paraffin on the pulp.

135. LAKE, 1,711,953. MAY 7, 1929.

The method comprises treating the sheet with a hot wax which normally renders the sheet transparent, cooling certain areas of the sheet and subjecting other areas to pressure at the moment of cooling.

Rag Content Paper Manufacturers Laboratory

By Jessie E. Minor [1]

Note: During the past year the Rag Content Paper Manufacturers have opened in Springfield, Massachusetts a research laboratory in connection with the office of the Writing Paper Manufacturers Association and under the direction of Mr. E. H. Naylor, Secretary, and in charge of Dr. Jessie E. Minor.—Editor.

This laboratory was opened for the purpose of working on problems which, because of either their fundamental chemical nature or general trade relations were of interest to all sustaining mills. Its policy from the first was to be open and in technical cooperation with all laboratories working on similar subjects.

The first problem undertaken involved both fundamental chemistry and trade relations: It was the relative value, especially in making high grade permanent papers, of rags and alpha wood pulp made by the Brown Company. In this work the supporting rag mills are not seeking evidence for any prejudice against alpha pulp. On the contrary, alpha pulp has been accepted as a very high grade of wood pulp and the majority of these mills use large quantities of it, not to replace the higher grades of rags but as a filler instead of the worn rags or sulphite pulp usually used in their lower grades of paper.

R. H. Rasch of the Brown Company, working at the Bureau of Standards, reported last year on a comparison of these two fibers. A study and average of his results for each class of papers shows that the alpha bonds had an average fold test of less than half that of bond papers made of new rags similarly sized and similarly averaged. The tear test for alpha pulp papers was about 75 per cent that of similar new rag bond papers, and the Mullen tests when calculated to equal weight papers averaged 80 per cent that of new rag papers.

A point which he well stressed was that upon oven heating for 72 hours at 100 deg. C alpha pulp papers, when equally glue sized, proved to be quite as resistant to loss of color and of strength as do the best of all new rag papers. While both natural again and oven aging will show the destructive effects of certain impurities in papers, we do not konw that the oven aging gives any measure of the inherent properties of the fibers themselves or of the effects of the impurities of the air which may react with the paper constituents, or of the amount of protection against aging offered by the glue sizing. Our criticisms of the oven aging tests may be summarized as follows:

Aging Tests for Permanence

1. While oven aging accelerates some effects of acids and other chemicals, it does not consider the effect of light and air over long periods of time. Our evidence indicates that these factors alter the deductions from oven aging.

2. Accelerated aging by heat is quite apt to bring about other reactions which never would occur under normal conditions. Sulphuric acid from tub sizing is said to be harmless, but from beater sizing where it passes over hot dryers it is very detrimental. Hydrochloric acid under normal aging is very detrimental but with oven aging it is soon volatilized and does very little damage.

3. Fillers and sizings offer such large protection against oven aging that it is quite easy to find papers made of worn rags or of ordinary sulphite which, because of their clay fillers or glue sizings are fully as permanent after oven aging as the best of rag papers. There is no convincing evidence that such protection functions to the same relative amount over the short exposure to high temperature and the long period of natural aging.

4. Percentage retention after oven aging, even if the method were accepted, does not make alpha papers, with their lower initial strength, the equal of the new rag papers.

Plan of Work

The plan of work being followed in this laboratory in its attempt to establish a logical basis on which to test papers for permanence includes:

1. The collecting from the manufacturers of reams of typical commercial bond and book papers to be used as a basis of study.

2. The sending of sheets of these papers to various climates and atmospheres with various degrees of air impurities to be hung so that air and diffused light but not sunlight may play freely on each sheet.

3. The testing of these papers for reactions for all recognized physical and chemical tests before and after a number of different types of accelerated agings.

4. After finishing our study of accelerated aging it is our intention to recall the papers being naturally aged and subject them to the same physical and chemical testing.

Progress Record

Evidence from our work to date would seem to indicate:

1. Dry oven heat is more of a test for impurities than of fiber quality. Alpha pulp papers resist this about as well as new rag papers. Sulphite papers are much less resistant than rag or alpha.

2. Lack of moisture over a long period of time lowers the fold of any paper but is more detrimental to alpha or sulphite

[1] Member TAPPI; Chemist, Rag Content Paper Manufacturers Association, Springfield, Mass.

papers than to rag papers. With excess moisture, even with heat, alpha papers increase their fold more than rag, but sulphite more than alpha.

3. In the Fade Ometer, which is much used for dye testing, and in which there is light and some moisture, the alpha pulp does about as well as the rag and, except with very long exposure, the sulphite as well as either rag or alpha bond. In this test, contrary to oven aging, glue sizing does not seem to offer any protection against aging and this probably explains the high rating it gives to sulphite bonds which are usually made without glue tub sizing.

4. In a light containing 75 per cent of visible rays and 25 per cent of infra red, wthout long heat rays or ultra violet, the glue sizing was again shown to be without effect and the sulphite bond after 70 hours showed fully as good resistance as alpha bond, though none of the wood papers equalled the new rag papers.

5. In ultra violet light the resistance of new rag is decidedly superior to that of alpha pulp, worn-rag, or sulphite papers. In this light, as in oven aging, the new-rag papers with glue sizing showed several times the resistance of similar papers without glue sizing.

6. As a result of storage during the year in an office cabinet, our test papers all lost somewhat in physical strength, but the relative percenatge loss differed from every one of the artificial methods tried.

In view of the evidence from this year's study, and in view of the fact that natural aging is undoubtedly the result of a complex combination of conditions, we are planning to arrange a set of aging tests which will give a definite short exposure to each of the known aging conditions as dryness, ultra violet light, heat, air impurities, etc. When the papers which are being aged in the different climates and atmospheres of the United States are returned and tests thereon compared with results of these different artificial agings, we believe that we shall be in a position to arrange such a combination of artificial agings as will give reasonable basis for judging papers.

Other lesser problems on which work has been done in this laboratory during the past year includes:

1. The gradings of rags. A method which since the war has been used extensively for testing the strength of textiles and in rayon manufacture, has been adapted to testing papermill rags and we believe that it should give considerable information of inherent fiber strength.

2. Considerable time has been spent in developing the places in mill control work where the new test for fiber strength may be used to determine deterioration from manufacturing process, thus enabling the making of a stronger paper from the same material.

3. Considerable work has been done in the attempt to establish mutual concordance of results between all the chemists of the industry in the making of fiber analyses on finished papers. Our standard hand sheets for this purpose have received many favorable comments.

4. Time has been spent in correspondence attempting to establish friendly relations with organizations in the United States and abroad, which might be interested in cooperating in the type of research work which we are doing.

Crown-Willamette To Expand at Lebanon

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., January 11, 1930.—The Crown-Willamette Paper company will probably increase the capacity of their plant at Lebanon, Ore., by the addition of a No. 3 paper machine which will be removed from the company's plant at Camas, Wash., in the extensive improvements and expansion being made there in which new equipment is being added. This will increase the capacity of the Lebanon plant about 35 per cent. A. W. Olsen is manager of the Lebanon plant.

Position of the Slice On a Fourdrinier

SPECIAL INQUIRY No. 139

A member writes: "We should like some information with regard to the conditions that effect the position of the slice with respect to the breast roll. We have recently installed a new wet end in which the first slice was placed directly over the center of the breast roll, the apron coming up to the first slice. It was found that with this arrangement a good sheet could not be formed. No matter how carefully the stuff was manipulated the sheet always had a "free" look through.

"It was not until the first slice was placed midway between the breast roll and the first tube roll and the apron allowed to extend at least three inches beyond the first slice, that any really good formation was gained.

"The machine is a 110-inch fourdrinier making a standard kraft sheet.

"Is there any definite relative position for the slice, apron and breast roll that will assure good sheet formation?"

Send replies to Secretary of TAPPI, 18 East 41st street, New York.

Embrittlement of Supercalender Rolls

SPECIAL INQUIRY No. 140

A member writes: "We are having considerable difficulty with the surface of the paper filled supercalender rolls becoming embrittled. We would like to obtain information as follows:

1. Kind of paper used for supercalender rolls.
2. Physical tests to be made on the paper used in the rolls that would be an indication of its service.
3. Pressure on the stack.
4. Method and degree of cooling of the rolls.
5. Hardness of the paper filled rolls.
6. Surface speed of the rolls.
7. Degree of finish of the supercalendered paper.

"We are manufacturers of book paper."

Send samples to Secretary of TAPPI, 18 East 41st street, New York.

Cracking of Fourdrinier Wires

SPECIAL INQUIRY No. 141

A member writes: "We are having considerable trouble with our fourdrinier wires cracking at the edges. Our machines have 1¼-inch deckle straps, and a one-pan wire guide. The wire cracks on both sides of the machine. This would seem to eliminate the possibility that the weight of the pan resting on the edge of the wire is causing the cracking.

"We have tried several makes of wires and find that they all crack. The crack starts at the outside edge of the selvage and continues to ½ to 1 inch in the wire.

"Possibly others have had a similar experience and can advise us what steps to take to prevent this action."

Send replies to Secretary of TAPPI, 18 East 41st street, New York.

Acid or Alkaline Stock for Beating?

SPECIAL INQUIRY No. 142

A member writes: "What are the particular advantages and disadvantages of beating in a water that is slightly acid or in one that is slightly alkaline? This refers to both paper quality and operating economy.

"Assuming that an alkaline beating condition is satisfactory in making a paper which is not rosin sized, should the stock go to the machine as in hard water, or would it be improved by being made slightly acid by alum?"

Please pass this inquiry on to someone who can answer it if you are unable to. All those responding will receive a transcript of the replies in blank, when issued.

Send replies to Secretary of TAPPI, 18 East 41st street, New York.

SECTION OF THE
COST ASSOCIATION OF THE PAPER INDUSTRY
Affiliated with
THE AMERICAN PAPER AND PULP ASSOCIATION
Edited by Thos. J. Burke C.A. Sec.-Treas.

Distribution of Administrative Expenses*

By J. F. Lovell[1]

The scientific study of the so-called "commercial expenses" with a view to improve the existing accounting methods of distribution was not given any serious attention by those in charge of this important step in the preparation of Loss and Gain statements until about six years ago. The following incident, drawn from our Convention history, is typical of the status of the subject at that time; A very technical paper was presented by one of our most erudite members on "The Application of Selling and Administrative Expense to Product." In the discussion that followed a member inquired "if the system outlined in the paper was in actual use"; the author's answer was, "not in actual use generally." I believe a closer answer would have been practical—scarcely at all!

Practical Application of the Principles

Since that time, much thought has been given to the subject and a number of large concerns have undertaken a practical application of the principles which were then almost entirely theoretical. You have certainly all observed what a prominent place the subject occupies in our current association literature. In view of this wealth of material presented by high authorities in the professional and industrial world it would be presumptuous for me to offer a paper on the theory of this subject or to present a system for general application. I believe, however, that our Company has pioneered in this phase of accounting, and as a member of their organization having a part in making the figures, I shall attempt to tell you about their method.

Our principal business is to manufacture and sell grinding wheels, abrasive grain, and grinding machinery. We have also two smaller lines known as Refractories and Floors in the manufacture of which abrasive materials are used. These five major classifications are subdivided and detailed monthly Loss and Gain statements prepared on twenty-five regular products.

The foundation of our expense distribution supporting these statements is laid in the card of accounts. Any activity of importance is represented by a specific account set up to receive the charges incurred for that activity. To indicate the thoroughness of the application of this principle I will state that we have in our ledgers twenty-five accounts for administrative expenses and one hundred and sixty-five accounts for selling expense. This careful analysis of expenses by accounts greatly diminishes the errors commonly pointed out in prorating these classes of expense. Incidentally, it may be stated that this feature of our system is found to be of great assistance in the operation of our budgets controlling these two classes of expense.

I will discuss the problem of distributing administrative expense first, because it is the smaller and the plan of distribution involves less detail. We have not been harassed in attempting to eliminate administrative expense as a separate classification by entirely merging it in manufacturing and selling. We cannot see how that would assist in the task of distribution and we find considerable advantage in maintaining it as a separate classification.

Twenty-five Separate Accounts

I have stated that this group is composed of twenty-five separate accounts. These accounts comprise the functions and classes of expense generally regarded as administrative in a large corporation. The principal items are:—

Salaries and Expenses of Corporation Officers.
Accounting and General Office Salaries and Expenses.
Legal Department.
Telephone and Telegraph.
Postage.

The inclusion of the billing and credit and collections departments in accounting and general office instead of in the selling expense is probably the only noteworthy exception to the standard group of administrative expense. Our practice in this respect may be explained by stating that it follows the line of functional organization in that the departments mentioned are responsible to the treasurer.

As all of our products should participate in this group of expenses the first step in distribution is to determine, by a careful survey of the sales over a period of several years, what relative part of our business was derived from each of the five major lines. In this calculation weight must be given to any basic change in relationship which may have taken place very recently. The ratios set up in this manner are used throughout the year to allocate to each major group its share of the total administrative expense.

The second step is to distribute to the sub-classifications of each major group the amount set apart for that group. Three different bases are used to accomplish this: 1—Standard List Value, 2—Tonnage, and 3—Sales Value.

Standard List Value refers to the uniform catalog list prices used in compiling production records. It does not represent selling prices. Quotations on standard list products are made at list less varying discounts. Major Group A is handled on this basis because Standard List Value is a better representation of physical quantities than selling prices would be.

Tonnage refers to the weight of the products sold. Major Group B and Minor Groups D-3 and D-4 are sold by weight and the distribution of expense is made on the basis of weight.

Sales Value requires no explanation, it being the net amount

* N. A. C. A. Bulletin.
[1] Norton Co., Worcester, Mass.

received from the customer. Distribution to sub-divisions of Major Groups C, D and E are made on this basis.

The Item of Taxes

This outlines our method of distributing administrative expenses and at this point I will take up the important item of Taxes as you have probably noted that it is not included in the administrative accounts. Our practice is to treat city taxes as a manufacturing expense and to distribute the amount as we do certain other Factory General expenses. State and Federal Taxes are kept separate from any other group and are handled as a final deduction to obtain Net Gain. They are distributed to the product classes on a basis of net sales or profit according to the nature of the tax.

As introductory to the exposition of our method of distributing selling expenses I desire to emphasize the very great differenec to be observed between the technique of marketing such products as ours and what are commonly called consumers' goods. I am prompted to speak of this because some of the enticing plans for distributing selling expenses which have recently come to my notice had to do with marketing consumers' goods. The broad aspect of our business from both the manufacturing and marketing position is that of service to manufacturing industries. We know that success for us means untiring effort to advance the art of grinding by supplying to the trade the products best suited to its needs. Our salesmen's efforts are expended in selling the particular grinding wheel, abrasive grain, or machine best adapted to the customer's requirement. We cannot institute a fashion or cultivate a national taste for our goods by clever slogans or sample packages.

Our products have a world-wide distribution. The selling in foreign countries is done largely through agents. The domestic selling is done by our salesmen, by agents, and by four stores located in important industrial centers. The sales organization is composed of five divisions, corresponding to the five major classes of products. Each division has a separate home office staff and a separate group of salesmen. The logic of this arrangement is apparent when it is explained that each of these major classes of product requires a corps of highly trained technical men specializing in that particular line.

General and Direct Selling Expenses

Our selling expenses are not subject to any considerable fluctuation and our business is but slightly seasonal, therefore, we do not have the problem occasioned by expenses which should be deferred. The classification of accounts follows the chart of organization and we have a separate group of accounts for each major class. In the following tabulation a representative group of general expenses and one of direct expenses is shown:

General Selling Expenses

1—General Sales Manager's Office.
2—General Publicity.
3—Adjustment of Complaints.
4—Branch Stores and Offices.

Direct Selling Expenses

1—Home Office Salaries and Expenses.
2—Salesmen's Salaries and Expenses.
3—Promotion and Service.
4—Advertising.
5—Catalogs and Circulars.
6—Exhibits.

The first step in the distribution of selling expenses is to tabulate the general expenses applicable to all of the major classes of products. The total amount of this tabulation is prorated to the major classes on the ratios developed from the record of sales for several years as described under administrative expense.

The second step is to tabulate under each major class the direct expenses collected in the specific accounts for each class. These totals are accumulated to the distributions made in the first operation giving a grand total for each major class.

The third and final step is to prorate the grand totals for each major class to the sub-classifications. This is performed in the same manner as described for the corresponding step in the distribution of administrative expenses, that is by employing the three bases of standard list value, tonnage and net sales.

Compiling Burden Rates

This completes the outline of our company's method of distributing administrative and selling expenses for the purpose of presenting monthly loss and gain statements on each of the products. There is a secondary use made of these segregated expenses which is of considerable importance. I refer to the utilization of these figures in compiling burden rates. All cost estimates made for the purpose of fixing selling prices contain a burden element to cover administrative and selling expenses. If profits are to be assured these very considerable expenses of doing business must be included in costs by means of a proved formula and not by guesswork.

Conclusion

In conclusion I desire to refer again to the control of these expenses through budgeting procedure. I believe this to be of much greater importance than carrying out refined plans of distribution. Our company has had three years' experience in establishing sales quotas and making budgets for selling and administrative expenses. In carrying on this work our set-up of accounts for distribution purposes has been a most serviceable foundation to build upon. We shall continue to apply to this important problem of management all our powers of research and control to the end that every dollar expended for commercial expenses shall be as justifiable an outlay in the pursuit of profit as the dollar spent in manufacture.

I. P. Offers Stock to Employees

The International Paper and Power Company is making an offering of its cumulative 7 per cent preferred stock to employees of International Paper Company and subsidiary and affiliated companies at $80 a share. This is the fifth annual stock offering.

In the first offering—made in 1925—2,002 employees subscribed to a total of 7,189 shares. Under the 1926 offering, 2,677 employees subscribed to a total of 8,488 shares; under the 1927 offering 3,310 employees subscribed to 11,247 shares; and under last year's offering, 3,186 employees subscribed to 10,015 shares.

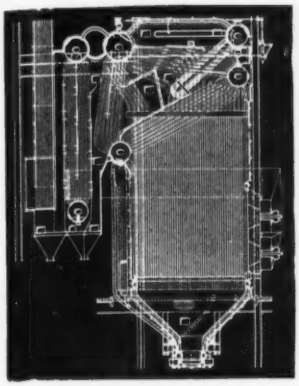
Employees may pay for their stock in full or by installments, as they prefer, the plan being designed to make it possible for all employees to become stockholders. If payment is made by installments, a fixed amount is deducted regularly from their pay and payment is thus spread over a period of a year and one-half.

The number of shares which employees may buy is based on their pay, three shares if their pay is $30 a week or less, four shares if it is $40 a week or less but more than $30 a week, and so on.

In addition to the regular 7 per cent dividends on the stock, the Company pays a bonus each year if the subscriber is still working for the Company and still owns his stock. Under the present offering, a bonus, as above, of $1 a share will be paid on January 1, 1931, and increasing at the rate of $1 a share a year until a last fixed bonus of $5 a share is paid on January 1, 1935.

Employees are free to sell their stock at any time they want if they have paid for it, but selling their stock stops the bonus. One of the results of the stock subscription plan of the Company is the promotion of thrift, for many employees who are not able to save money regularly are encouraged to do so by the installment purchase plan.

Employees owning stock are from all ranks, from day laborers to the executive staff. The plan is general in its scope.



BADENHAUSEN STEAM GENERATING UNITS

installed in some of the largest pulp and paper mills in the United States and Canada

MAXIMUM STEAM
AT
HIGHEST EFFICIENCY
WITH
LEAST CAPITAL INVESTMENT and OPERATING COSTS

Result:—Enormous savings in cost of pulp and paper produced.

BADENHAUSEN CORPORATION
General Offices and Works
CORNWELLS HEIGHTS (PHILA.), PA.

LINDSAY SPIRAL WEAVE FOURDRINIER WIRES

prevent grooving of Seams on machines not equipped with oscillating Suction Boxes. This lengthens the life of wires and increases their production.

THE LINDSAY WIRE WEAVING CO.

14025 Aspinwall Ave.
CLEVELAND, OHIO

1864 **1930**

"EXCELSIOR" FELTS

for every grade of

PULP AND PAPER

We continue to maintain at the top the quality of Excelsior Felts, as we have done since we, as pioneers, made the first endless paper machine felts manufactured in America.

Seamless felts for fast running.
Satin Style felts for finish.
Special felts to meet every condition.
Send us your felt problems.

SOLD BY

KNOX WOOLEN COMPANY
CAMDEN, MAINE

BULKLEY, DUNTON & COMPANY
75-77 Duane St., N. Y., and direct

Union Screen Plate Company

Fitchburg, Mass., U. S. A. Lennoxville, P. Q., Canada

UNION BRONZE

SCREEN PLATES FOR FLAT SCREENS
6 SLOTS—5 SLOTS—4½ SLOTS—4 SLOTS—PER INCH

Old Plates Reclosed and Re-cut to Accurate Gauge
Rolled Phosphor Bronze and Copper Plates for Rotary Screens

Sole Manufacturers of the Union Witham Screen Plate Vat and Fastener

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JANUARY 25, 1930

SUMMARY

Cigarette paper ..... 197 cs.
Wall paper ..... 182 bls., 20 cs.
Paper hangings ..... 49 bls., 8 cs.
News print ..... 563 rolls
Printing paper ..... 123 rolls, 40 cs.
Wrapping paper ..... 92 cs.
Aluminum paper ..... 28 cs.
Packing paper ..... 86 cs.
Parchment paper ..... 34 cs.
Drawing paper ..... 15 rolls, 14 cs.
Filter paper ..... 22 bls., 29 cs.
Colored paper ..... 15 bls., 75 cs.
Photo paper ..... 3 cs.
Decalcomania paper ..... 32 cs.
Metal coated paper ..... 9 cs.
Baryta coated paper ..... 101 cs.
Surface coated paper ..... 8 cs.
Silk paper ..... 10 cs.
Coutchouc paper ..... 12 cs.
Wax coated paper ..... 17 cs.
Tissue paper ..... 14 cs.
Writing paper ..... 1 cs.
Straw boards ..... 210 bdls., 72 rolls
Miscellaneous paper .. 60 rolls, 164 bls. 382 cs.

CIGARETTE PAPER

P. J. Schweitzer, Pr. Wilson, Marseilles, 140 cs.
Ivars & Casasin, Estrella, Alicante, 5 cs.
Liggett & Myers Tobacco Co., Homeric, Southampton, 34 cs.
Standard Products Corp., Homeric, Southampton, 18 cs.

WALL PAPER

Universal Car Loading Co., Columbus, Bremen, 1 cs.
J. E. Bernard & Co., Columbus, Bremen, 2 cs.
F. J. Emmerich, Pr. Harding, Hamburg, 23 bls., 2 cs.
Tice & Lynch, Pr. Harding, Hamburg, 2 bls.
J. E. Bernard & Co., Pr. Harding, Hamburg, 5 bls.
Globe Shipping Co., Pr. Harding, Hamburg, 19 bls.
F. J. Emmerich, Albertic, Liverpool, 46 bls., 2 cs.
W. H. ILody & Co., American Trader, London, 4 bls.
Heesoth Basse & Co., Stuttgart, Bremen, 2 bls.
W. H. S. Lloyd & Co., Westernland, Antwerp, 1 cs.
A. L. Diament & Co., Westernland, Antwerp, 1 cs.
E. O'Brien, Homeric, Southampton, 1 ble.
A. C. Dorman, Jr., Inc., Homeric, Southampton, 9 bls., 1 cs.
F. J. Emmerich, Thuringia, Hamburg, 8 bls., 1 cs.
Globe Shipping Co., Thuringia, Hamburg. 53 bls., 4 cs.
J. E. Bernard & Co., Thuringia, Hamburg, 10 bls., 3 cs.
Phoenix Shipping Co., Thuringia, Hamburg, 2 cs.

PAPER HANGINGS

R. Pfingst, Columbus, Bremen, 4 bls.
A. C. Dodman, Jr., Inc., Lancastria, Liverpool, 3 bls.
W. H. S. Lloyd & Co., American Trader, London, 42 bls.
Whiting & Patterson Co., Inc., Homeric, Southampton, 8 cs.

NEWS PRINT

Parsons & Whittemore, Inc., Stuttgart, Bremen, 65 rolls.
Stora Kopperberg Corp., Drottningholm, Gothenburg, 124 rolls.
Perkins Goodwin & Co., Thuringia, Hamburg, 374 rolls.

PRINTING PAPER

Keuffel & Esser Co., Pr. Harding, Bremen, 33 rolls.
Oxford University Press, Lancastria, Liverpool, 13 cs.
Tamm & Co., Stuttgart, Bremen, 9 cs.
Hensel, Bruckman & Lorbacher, Stuttgart, Bremen, 1 cs.
——, Stuttgart, Bremen, 90 rolls.
C. Steiner, Stuttgart, Bremen, 4 cs.
Japan Paper Co., Alaunia, Southampton, 4 cs.
E. Dietzgen & Co., Volendam, Rotterdam, 9 cs.

WRAPPING PAPER

Sylvania Industrial Corp., Westerland, Antwerp, 73 cs.
Standard Products Corp., Westernland, Antwerp, 19 cs.

ALUMINUM PAPER

Catty Foil Co., Westernland, Antwerp, 28 cs.

PACKING PAPER

American Express Co., Thuringia, Hamburg, 86 cs.

PARCHMENT PAPER

S. Bienfang, Volendam, Rotterdam, 13 cs.
W. C. Sullivan & Co., Thuringia, Hamburg, 21 cs.

DRAWING PAPER

Keuffel & Esser Co., Pr. Harding, Bremen, 14 cs., 15 rolls.

FILTER PAPER

H. Reeve Angel & Co., Inc., American Trader, London, 18 cs.
Lazard Freres, Providence, Marseilles, 2 cs.
A. Giese & Son, Thuringia, Hamburg, 20 bls.
C. Schleicher Schull Co., Thuringia, Hamburg, 2 bls, 9 cs.

COLORED PAPER

S. Gilbert, Columbus, Bremen, 31 cs.
J. J. Shore, Columbus, Bremen, 13 cs.
E. Henningson, Columbus, Bremen, 2 cs.
Henschel Naeve Co., Columbus, Bremen, 15 bls.
Borden Riley Paper Co., Westernland, Antwerp, 5 cs.
M. Snederker Corp., Thuringia, Hamburg, 24 cs.

PHOTO PAPER

E. Henningson Co., Columbus, Bremen, 3 cs.

DECALCOMANIA PAPER

C. W. Sellers, Columbus, Bremen, 4 cs.
C. W. Sellers, Stuttgart, Bremen, 22 cs.
Phoenix Shipping Co., Stuttgart, Bremen, 2 cs.
C. W. Sellers, Thuringia, Hamburg, 4 cs.

METAL COATED PAPER

Hensel, Bruckman & Lorbacher, Stuttgart, Bremen, 9 cs.

BARYTA COATED PAPER

Globe Shipping Co., Stuttgart, Bremen, 101 cs.

SURFACE COATED PAPER

Globe Shipping Co., Volendam, Rotterdam, 8 cs.

SILK PAPER

Hensel, Bruckman & Lorbacher, Stuttgart, Bremen, 3 cs.
Judson Froeght F'd'g. Co., Thuringia, Hamburg, 2 cs.

COUTCHOUC PAPER

American Express Co., Thuringia, Hamburg, 12 cs.

WAX COATED PAPER

Bank of United States, Columbus, Bremen, 17 cs.

TISSUE PAPER

Taub Hummel & Schnall, Pr. Harding, Bremen, 8 cs.
G. W. Sheldon & Co., American Trader, London, 4 cs.
W. J. Byrnes, Alaunia, Southampton, 2 cs.

WRITING PAPER

Globe Shipping Co., Pr. Harding, Bremen, 1 cs.

STRAW BOARDS

Spaulding & Tewksbury, Volendam, Rotterdam, 72 rolls.
The Area Co-ordinator, Volendam, Rotterdam, 210 bdls.

MISCELLANEOUS PAPER

W. Bersch, Columbus, Bremen, 5 cs.
D. F. Young, Stuttgart, Bremen, 27 cs.
The Borregaard Co., Inc., Drottningholm, Gothenburg, 60 rolls.
Kraemer & Co., Drottningholm, Gothenburg, 164 rolls.
E. H. Sargent & Co., Drottningholm, Gothenburg, 2 cs.
J. E. Anderson, Drottningholm, Gothenburg, 2 cs.
Japan Paper Co., Estrella, Marseilles, 7 cs.
Public National Bank, Estrella, Marseilles, 25 cs.
Standard Products Corp., Paris, Havre, 194 cs.
Distinctive Writing Paper Co., Paris, Havre, 12 cs.
American Express Co., Paris, Havre, 75 cs.
Keller Dorian Paper Co., Paris, Havre, 13 cs.
Kraemer & Co., Paris Havre, 16 cs.
F. J. Emmerich, Paris, Havre, 5 cs.
International F'd'g. Co., J. Jadot, Antwerp, 25 cs.

RAGS, BAGGING, ETC.

S. Birkenstein & Son, Pipestone County, Havre, 25 bls. new cuttings.
Castle & Overton, Inc., Pipestone County, Havre, 50 bls. bagging.
V. Galaup, Pipestone County, Havre, 8 bls. new cuttings; 29 bls. rags.
J. Cohen & Son, Pipestone County, Havre, 13 bls. rags.
P. Berlowitz, Exermont, Alexandria, 72 bls. rags.
Manufacturers Trust Co., United States Copenhagen, 351 bls. rags.
Castle & Overton, Inc., United States, Copenhagen, 105 bls. bagging; 19 bls. rags.
Baring Bros. & Co., California, Glasgow, 55 bls. paper stock.
Darmstadt, Scott & Courtney, California, Glasgow, 13 bls. rags.
S. Birkenstein & Son, Estrella, Barcelona, 83 bls. rags.
Fidelity Trust Co., Estrella, Barcelona, 116 bls. rags.
H. G. Lichtenstein, Estrella, Barcelona, 270 bls. rags.
The Barrett Co., Estrella, Barcelona, 77 bls. rags.
National City Bank, Estrella, Barcelona, 100 bls. rags.
S. Birkenstein & Son, Estrella, Valencia, 150 bls. rags.
M. Snedeker Corp., Tiradentes, Antwerp, 35 bls. paper stock.
Royal Manfg. Co., Tiradentes, Antwerp, 13 bls. rags.
1st National Bank of Boston, Tiradentes, Antwerp, 189 bls. cotton waste.
Corn Exchange Bank, Tiradentes, Antwerp, 37 bls. paper stock.
Guaranty Trust Co., Tiradentes, Antwerp, 130 bls. flax waste.
Equitable Trust Co., Tiradentes, Antwerp, 90 bls. flax waste.
Brown Bros. & Co., Tiradentes, Antwerp, 95 bls. flax waste.
——, Tiradentes, Antwerp, 316 bls. bagging, 45 bls. rags.
E. J. Keller Co., Inc., Tiradentes, ——, 23 bls. rags.
International Purchasing Co., Wytheville, Antwerp, 33 bls. bagging.
American Express Co., Thuringia, Hamburg, 17 bls. rags.

OLD ROPE

Brown Bros. & Co., Vulcania, Trieste, 64 coils.
Brown Bros. & Co., Pipestone County, Havre, 124 coils.
Brown Bros. & Co., Westernland, Antwerp, 54 coils.
Brown Bros. & Co., Volendam, Rotterdam, 96 coils.
International Germanic Trust Co., Estrella, Barcelona, 39 coils.
Irving Trust Co., Excelsior, Genoa, 63 coils.

CASEIN

T. M. Duche & Sons, Vauban, B. Ayres, 834 bags.

WOOD PULP

Atterbury Bros., Inc., United States, Copenhagen, 250 bls. woodpulp, 50 tons.

(*Continued on page 72*)

Pulp Mill Knives for
Chippers
Barkers
Hogs
Shredders

Paper Mill Knives for
Washers
Beaters
Refiners
Jordans
Rotary Sheet Cutters
Trimmers
Flat Bed Cutters

Bolton Quality
PAPER TRIMMER AND FLAT BED CUTTER KNIVES
Hold their edge longer—reduce grinding expense — wear evenly
Bolton Knives reduce your cutting costs to an absolute minimum. Hand forged from the finest steel, guaranteed without reservation for quality, finish and fit. Immediate shipment from large factory stock.

"It's the KNIVES that do the work"

John W. Bolton and Sons, Inc.
Lawrence, Massachusetts
BOLTON QUALITY
Specialists in pulp and Paper Mill Knives For Twenty-Five Years
2930

PARIS BLACK IN FIBRE CONTAINERS
Still going strong . . have you ordered?

Buyers liked the idea of Paris Black in Fibre Containers right from the start. There has been no let down in the demand—in fact, it is increasing.

So this is a reminder to try it, in case you aren't already a satisfied user. By packing in fibre containers, the full strength and fine quality of Heller & Merz Paris Black reaches your plant unimpaired.

Prompt deliveries made from stocks in
NEW YORK
BOSTON
PHILADELPHIA
CHICAGO

Ask us to quote.

The HELLER & MERZ COMPANY
505 Hudson St. New York
Boston 287 Atlantic Ave. | Chicago 146 W. Kinzie St. | Springfield, Mass. 40 Albart St. | Philadelphia 114 Market St.
Factory—NEWARK, N. J.

Patentpapierfabrik zu Penig
Penig (Saxony) Germany

Founded 1537

SPECIALTIES

Heliographic Raw Papers
for
Ferro Prussiate, Ferro Gallic and Dry processes

Cotton Stencilling (Jacquard) Papers

INQUIRIES INVITED

Call on us when on a European Buying Visit.

THE SIGN OF GOOD FELTS

USE OUR TOP FELTS on your Board Machines for FINISH and PRODUCTION.

MADE BY THE WATERBURY FELT CO.
AT SKANEATELES FALLS, N.Y.

PAPER MAKERS FELTS AND JACKETS

Imports of Paper and Paper Stock

(*Continued from page 70*)

A. P. W. Paper Co., Nord Sheet Harbor, N. S., 9812 bls. woodpulp.
E. M. Sergeant & Co., Drottningholm, Gothenburg, 390 bls. sulphite.
J. Andersen & Co., Mexicano, Dramen, 1000 bls. wood pulp.
J. Andersen & Co., Mexicano, Greaker, 3126 bls. wood pulp.
O. E. Kiaer, Mexicano, Greaker, 250 bls. woodpulp.
Castle & Overton, Inc., Thuringia, Hamburg, 414 bls. wood pulp, 62 tons.

WOOD PULP WADDING

Sylvania Industrial Corp., Volendam, Rotterdam, 50 bls.

WOOD FLOUR

A. Hurst & Co., Drottningholm, Gothenburg, 20 bags.
The Burnet Co., Drottningholm, Gothenburg, 678 bags.
B. L. Soberski, Mexicano, Frederickstad, 750 bags.

BALTIMORE IMPORTS

WEEK ENDING JANUARY 25, 1930

E. M. Sergeant & Co., Mexicano, Oslo, 1200 bls. wood pulp.
Perkins Goodwin & Co., Mexicano, Oslo, 400 bls. wood pulp.
Atterbury Bros. Inc., Mexicano, Drammen, 2000 bls. wood pulp.
Parsons & Whittemore, Inc., Mexicano, Drammen, 250 bls. wood pulp.
Atterbury & McKelvey, Inc., Mexicao Tofte, 2700 bls. wood pulp.
O. E. Kiaer, Mexicao, Greaker, 1000 bls. wood pulp.
J. Andersen & Co., Mexicao, Greaker, 2940 bls. wood pulp.
Bulkley, Dunton & Co., Malmen, ——, 3250 bls. wood pulp.
Bulkley, Dunton & Co., Bilderdyk, ——, 900 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING JANUARY 25, 1930

Guaranty Trust Co., Estrella, Marseilles, 137 bls. rags.
Bank of N. Y., Estrella, Valencia, 70 bls. rags.
A. H. Searle, Wytheville, Antwerp, 88 bls. rags.
Castle & Overton, Inc., Wytheville, Antwerp, 497 bls. rags.
S. E. Ingber, Wytheville, Antwerp, 162 bls. rags.
Bank of N. Y., Wytheville, Antwerp, 54 bls. rags.
G. W. Millar & Co., Wytheville, Antwerp, 239 bls. rags.
A. Hurst & Co., Wytheville, Antwerp, 100 bls. rags.
W. Heisley, Wytheville, Antwerp, 64 bls. rags.
Castle & Overton, Inc., Excello, Smyrna, 929 bls. rags.
V. Galaup, Excelsior, Leghorn, 88 bls. rags.
Guaranty Trust Co., Excelsior, Leghorn, 189 bls. rags.
A. Hurst & Co., Excelsior, Marseilles, 49 bls. rags.
J. A. Steer & Co., Excelsior, Casablanca, 41 bls. rags.
Bulkley, Dunton & Co., Hagen, ——, 1000 bls. wood pulp.
Bulkley, Dunton & Co., Hjelmaren, ——, 2100 bls. wood pulp.
Bulkley, Dunton & Co., Malmen, ——, 875 bls. wood pulp.
Bulkley, Dunton & Co., Consul Corfitzen, ——, 6975 bls. wood pulp.

BOSTON IMPORTS

WEEK ENDING JANUARY 25, 1930

Irving Trust Co., Ninian, Manchester, 17 bls. new cuttings.
Irving Trust Co., Ninian, Manchester, 85 bls. paper stock.
Baring Bros. & Co., Ninian, Manchester, 103 bls. paper stock; 273 bls. new cuttings; 306 bags hide cuttings.
V. Galaup, Pipestone County, Dunkirk, 55 bls. rags.
Forte Dupee Sawyer, Pipestone County, Dunkirk; 67 bls. rags.
Downing & Co., Pipestone County, Dunkirk, 79 bls. rags.
Downing & Co., Pipestone County, Havre, 2 cs. wall paper.
Baring Bros. & Co, Pipestone County, Havre, 50 bls. new cuttings.
Hollingsworth Vose Co., Pipestone County, Havre, 119 bls. bagging.
Irving Trust Co., Pipestone County, Havre, 66 bls. rags; 43 bls. string waste.
Castle & Overton, Inc., Pipestone County, Havre, 141 bls. rags.
C. Belsky, Pipestone County, Havre, 64 bls. rags.
Int'l Germanic Trust Co., Pipestone County, Havre, 250 bls. bagging.
V. Galaup, Pipestone County, Havre, 146 bls. rags.
Forte Dupee Sawyer, Wytheville, Antwerp, 78 bls. rags.
E. Butterworth & Co., Inc., Wytheville, Antwerp, 220 bls. flax waste.
American Express Co., Wytheville, Antwerp, 18 bls. rags.
Baring Bros. & Co., Wytheville, Antwerp, 8 bls. rags.
International Purchasing Co., Wytheville, Antwerp, 70 coils old rope.
G. F. Malcolm Co., Lancastria, Liverpool, 37 cs. carbonizing tissue.
R. P. Lambert Co., Lancastria, Liverpool, 2 cs. tissue paper.
E. J. Keller Co., Inc., Burgerdyk, ——, 40 bls. rags.
Bulkley, Dunton & Co., Hedderheim, ——, 6200 bls. wood pulp.
Bulkley, Dunton & Co., Westport, ——, 250 bls. wood pulp.

NEWPORT NEWS IMPORTS

WEEK ENDING JANUARY 25, 1930

Atterbury Bros., Inc., Mexicano, Drammen, 2500 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING JANUARY 25, 1930

Atterbury & McKelvey, Mexicano, Tofte, 450 bls. wood pulp.

I. P. Seek Reduction of Assessment

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., January 20, 1930.—A referee will be appointed to take testimony in the case of the International Paper Company against the Town of Morneau and the Village of South Glens Falls. The company seeks to obtain a review and reduction of assessment on its property now occupied by the Veldown Company, a subsidiary. A writ of certiorari was recently granted the firm to secure a review of its case before Judge Rogers in Supreme Court. Several weeks ago the assessors in South Glens Falls were served with the writ which is returnable this week. The International some time ago brought action against the Town of Moreau seeking a reduction in taxes and the present action against South Glens Falls is an effort to obtain a reduction of more than $200,000 on its mill property.

Consolidated Storage Plant Burned

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., January 27, 1930.—The big storage plant of the Consolidated Paper Company, Monroe, completed about three months ago at a cost in excess of $250,000, is in ruins as result of a disastrous fire that completely gutted the building, destroying in addition to valuable machinery and equipment, over 1,200 tons of paper stock. The total loss will approximate a half million dollars. The cause of the fire remains a mystery.

Paper Index Number for December

WASHINGTON, D. C., January 20, 1930.—The wholesale price index number for December for paper and pulp was 87.3 compared with 87.9 for November and 88.6 for December, 1928 taking 1926 at 100 according to the Department of Commerce.

Col. E. J. Slate Leaves American Writing

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., January 28, 1930.—Col. Edmund J. Slate who resigned as master mechanic at the American Writing Paper Company, Inc. to accept a position of Sheriff of Hampden County was given a dinner Saturday night at the Hotel Nonotuck by his associates. He was presented with a desk set, Andrew Jackson superintendent of maintenance acting as toastmaster. Other officials present included L. G. Reynolds assistant to President Sidney L. Willson; L. M. Yoerg and William L. Nixon vice presidents; Adam Wilkinson, labor commissioner; and James Reilly assistant comptroller.

Leaves Forest Products Laboratory

MADISON, Wis., January 20, 1930.—Oscar T. Quimby, chemist on the staff of the U. S. Forest Products Laboratory, left the laboratory January 28 to take a position in the research division of the Procter & Gamble Company, Cincinnati. Mr. Quimby joined the laboratory in July, 1928, and was assigned to experiments on the electro-endosmosis of wood. He received his B. S. degree at Montana State College, where he specialized in industrial chemistry. Subsequent to graduation he held an instructorship at Montana State College and was engaged in graduate work in physical chemistry at the University of Wisconsin.

Starch In Paper Making

KALAMAZOO, Mich., January 27, 1930.—J. P. Strasser, of the Stein-Hall Manufacturing Company, Chicago, addressed the January meeting of the Michigan division of the American Pulp and Paper Mill Superintendents Association. His subject was "Starch in Paper Making."

The HARRINGTON & KING PERFORATING CO.

5652 Fillmore St
Chicago, Ill.

New York Office
114 Liberty St

Screens of All Metals

PERFORATED METALS

For use in Pulp and Paper Mills

HUNGERFORD FILTERS

NO STRAINER STOPPAGES
NO SAND RENEWALS
CRYSTAL CLEAR WATER ALWAYS

HUNGERFORD & TERRY, INC.
CLAYTON, N. J.

Paper Stock

Supplies for Paper Manufacturers
A reliable source of supply.
Established for 43 years.
Write us your needs

Mendelson Bros. Paper Stock Co.
910 S. Michigan Ave. Chicago, Ill.
Long Distance Phones—
Harrison 2840-41-2842

Babbitt Users - who know - demand

Monarch Ball Metal

The STEEL PROCESS BABBITT

FOR HIGH SPEED AND SEVERE SERVICE

SEE THE IDEA — TRADE MARK

If your Distributor cannot supply you, tell us.

MONARCH METAL COMPANY
Established 1895
119 South Lincoln Street CHICAGO

Ticonderoga Machine Works
Ticonderoga. N. Y., U. S. A.
MANUFACTURERS OF
WARREN IMPROVED CALENDER DOCTORS
With Flexible Blades, Universal Adjustment and Control (PATENTED)
WARREN IMPROVED PATENT DOUBLE DRUM WINDERS
Patent BALL VALVE Hydrant
Stock Circulating Systems and
other Paper Mill Specialties
SEND FOR OUR BULLETIN

Perforated Metal Screens

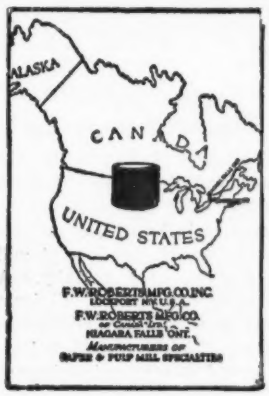
For Pulp and Paper Mills

STEEL, COPPER, BRASS, BRONZE, MONEL METAL and other Alloys punched for Centrifugal and Rotary Screens, Pulp Washers, Drainer Bottoms, Filter Plates, etc.

".065" Round

CHARLES MUNDT & SONS
63-65 FAIRMONT AVE. JERSEY CITY, N. J.

BURRS



BURRS

C. K. WILLIAMS & CO. ANCHOR BRAND DRY COLORS AND FILLERS EASTON, PA. U.S.A.

Red
Brown
Yellow
} Oxides

Talc

Yellow Ochres,
Umbers, Agalite

C. K. Williams & Company
EASTON, PA.
88 Kent Ave., Brooklyn, N. Y.
1500 Southwestern Ave., Chicago, Ill.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, January 29, 1930.

Conditions in the local paper market were fairly satisfactory during the past week. Demand for the various standard grades appears to be gradually improving. Inquiries for future needs are being received in good volume. Sales forces of the leading paper houses are conducting a strenuous campaign for new orders. No radical price changes have been recorded, except in the kraft section, where considerable concessions have been made.

There have been no important developments in the news print price situation, although a satisfactory solution of the problem in the near future is hoped for. Statistics gathered by the News Print Service Bureau show that operations in the United States and Canada averaged 79 per cent of total capacity in the week ended January 11. Stocks at the mills are not excessive.

While production and orders of box board have increased of late the price situation remain unsatisfactory. The fine paper market is exhibiting a strong undertone and most of the various grades are in persistent request. Prices are holding to schedule, in most instances. The coarse paper market is rather irregular, although wrapping paper is moving into consumption in normal volume for the season.

Mechanical Pulp

Steadiness prevails in the ground wood market. While demand for both domestic and imported mechanical pulp is excellent, offerings continue limited, due to curtailed production at home and abroad. The contract movement is being maintained in good volume. Prices are holding to formerly quoted levels, in most instances, and shading is infrequent.

Chemical Pulp

Trading in the chemical pulp market was fairly active. The undertone of the market was slightly easier. Imported bleached sulphite is now offered at from $3.30 to $4.25; No. 1 strong unbleached sulphite at from $2.65 to $2.75, and Mitcherlich unbleached sulphite at from $2.70 to $3.00, on dock, Atlantic ports. Quotations on other grades are unchanged.

Old Rope and Bagging

Most of the business transacted in the old rope and bagging market was along routine lines. Offerings of both domestic and imported manila rope are rather scarce and prices are steady to firm. Mixed rope is moving in fair volume. Some improvement was noticed in the bagging market. Both scrap and gunny were in better demand than of late.

Rags

Paper mill interest in the domestic rag market is apparently reviving. Demand for cotton cuttings is becoming more insistent and roofing rags are also in better request. Mixed rags continue steady with supplies rather restricted. Demand for imported rags is only moderate. Prices abroad are still considered too high by local brokers.

Waste Paper

The paper stock market was more active during the week than market, the lower grades are beginning to attract the attention of manufacturers in New England and the West. The price trend on these grades is becoming firmer. The higher grades of waste paper continue steady, with prices unchanged.

Twine

Seasonal conditions prevail in the twine market. Demand for the various grades is satisfactory for the time of year and offerings are about sufficient to fill current requirements. While competition for extra large orders is exceptionally keen, prices are generally holding to formerly quoted levels.

Estate of Late Lillian H. Howard

DAYTON, Ohio, January 14, 1930—An inheritance tax of $105,000 was paid to County Auditor Joseph A. Lutz, on the estate of the late Lillian H. Howard, wife of Col. Maxwell Howard, head of the various paper mill properties in the Miami Valley, including the Aetna Paper Company, Dayton, the Harding Paper Company, Franklin, and the Howard Paper Company, Urbana.

Of this amount the city of Dayton receives $50,236.73 and the state of Ohio $52,653.22.

The remainder of the $105,000 is being divided among Van Buren, Washington and Columbia townships and to Hamilton county, in which districts the decedent owned the property.

In addition to that tax, the heirs of the Howard estate will pay $26,326.62 as Federal income tax. The total value of the estate under the Federal inheritance tax law was figured at $2,104,119.58 and the total value under Ohio laws, which do not assess some of the items counted by the Government, was $1,243,023.12.

A report filed here showed that $44,959.59 for Ohio was acquired by means of direct inheritance tax and $60,349.86, or 80 per cent represents Ohio's share of the Federal tax.

On the Federal tax from the property of Mrs. Howard was appraised as follows:—

Aetna Paper Company, open accounts not listed on itemized statement, $257,346 and other Aetna Paper stock $603,750; real estate, $55,906.62; cash, $34,362.92; stocks and bonds, $1,152,753.56.

Mrs. Howard died in New York City where she was residing temporarily. Her home was in Dayton but she originally came from Cincinnati, where her burial took place. She was the daughter of the late H. H. Hoffman, capitalist and paper manufacturer.

Takes Over Holyoke Paper Products Equipment

HOLYOKE, Mass., January 21, 1930.—The Morart Paper Company Inc., has taken over the entire equipment of the Holyoke Paper Products Corporation of South Hadley Falls and will remove the business to Holyoke as soon as an addition is built to its present quarters in the Hadley Thread mill property of the municipal lighting department of the city. Architect Fred H. Franz is working on the plans which call for the raising of the roof of the Morart plant and the addition of an extra floor in the space so gained. The Morart plant has been in operation day and night for several months and is expanding rapidly.

GEORGE F. HARDY

Consulting Engineer

305-309 Broadway, New York City, N. Y.

Member—Am. Soc. C.E.—Am. Soc. M.E.—Eng. Inst. Can.

Consultation	Paper and Pulp Mills
Reports	Hydro-Electric and
Valuations	Steam Power Plants
Estimates	Plans and Specifications

ORBISON and ORBISON

Consulting Engineers

APPLETON, WIS.

Water Power Developments
Paper, Pulp and Fibre Mills
Electrical and Steam Power Plants
Plants and Specifications
Survey, Evaluations, Reports

Thomas E. Orbison — Member — A.I.M. & M.E. W.S.E.

Thomas W. Orbison — Associate Member — A.S.M.E. A.I.E.E.

Pulp and Paper Mills, Power Plants, Chemical Plants

Engineering Design	Management
Construction Supervision	Process Development
Mechanical Equipment	Waste Utilization
Surveys	Fuel Economy
Investigations	Valuations

Arthur D. Little, Inc.

Chemists : Engineers : Managers

30 CHARLES RIVER ROAD CAMBRIDGE, MASS.

Hardy S. Ferguson & Co.

Consulting Engineers

200 Fifth Avenue, New York City

Hardy S. Ferguson.....Member A.S.C.E., A.S.M.E., E.I.C.
Moses H. Teaze.....Member A.S.M.E., E.I.C.
J. Wallace Tower.....Member A.S.C.E., A.S.M.E.

Consultation, reports, valuations, and complete designs and engineering supervision for the construction and equipment of

Pulp and Paper Mills and other Industrial Plants.
Steam and Hydro-electric Power Plants.
Dams and other Hydraulic Structures.

THE CLARK-AIKEN CO.

Successors to
H. C. Clark & Son Machine Co.

PAPER MILL MACHINERY

LEE, MASS.

Revolving Paper Cutters—Rag Cutters—Cylinder Paper Machines—Washing and Beating Engines—Chilled Iron and Paper Calenders—Fan and Stuff Pumps—Engine Roll Bars and Bed Plates—Cylinder Molds—Marshall Drives—Slitters and Rewinders—Reels—Dryers with Improved Packing Boxes—Wet Machines—Gun Metal and Rubber Rolls—Rolls Reground.

V. D. SIMONS

INDUSTRIAL ENGINEER

Pulp and Paper Mills, Hydro-Electric and Steam Power Plants, Electrification Paper Mill Properties.

435 No. Michigan Ave.

CHICAGO, ILL.

PAPER MAKERS CHEMICAL CORP.

SUPERIOR ROSIN SIZE
SATIN WHITE
and other
INDUSTRIAL CHEMICALS

Plants at

EASTON, PA.
KALAMAZOO, MICH.
NORTH MILWAUKEE, WIS.
HOLYOKE, MASS.
STONEHAM, MASS.
BOSTON, MASS.
ALBANY, N. Y.
LOCKPORT, N. Y.
CARTHAGE, N. Y.
SAVANNAH, GA.
JACKSONVILLE, FLA.
PENSACOLA, FLA.
FARGO, GA.
ATLANTA, GA.
MARRERO, LA.
BURLINGTON, ONTARIO
ERITH, ENGLAND

H. S. TAYLOR

Consulting Engineer

Member Am. Soc. C. E.—Member Am. Soc. M. E.
Member Eng. Inst., Can.—Member A. I. E. E.

PULP, PAPER, AND FIBRE MILLS
HYDRO - ELECTRIC AND STEAM
POWER PLANTS
PLANS-SPECIFICATIONS-EVALUATIONS
REPORTS - CONSULTATIONS

Jefferson St. Arcade, Dayton, O. — Guarantee Bldg., Montreal, P. Q.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, January 29, 1930.

BLANC FIXE.—The position of the blanc fixe market is unchanged. Supplies are moving into consumption in normal volume for the season. Prices are steady. The pulp is quoted at from $42.50 to $45.00 a ton, in bulk, while the powder is selling at from 3¾ cents to 4½ cents a pound, in barrels, at works.

BLEACHING POWDER.—Conditions in the bleaching powder market are fairly satisfactory. The contract movement is well up to average. Prices are generally holding to previously quoted levels, without difficulty. Bleaching powder is selling at from $2.00 to $2.35 per 100 pounds, in drums, at works.

CASEIN.—Some improvement was noticed in the casein market. Domestic casein is still quoted at from 14½ cents to 15½ cents per pound, while Argentine standard ground is selling at from 14½ cents to 15 cents, and finely ground at from 15 cents to 15½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—The caustic soda market is exhibiting a strong undertone. Contract shipments are moving at a satisfactory pace. Prices remain unaltered. Solid caustic soda is quoted at from $2.90 to $2.95, and the flake and the ground at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—Most of the business transacted in the china clay market was along routine lines. The contract movement is normal. Prices are steady. Imported china clay is quoted at from $15 to $25 per ton, ship side, while domestic paper making clay is selling at from $8 to $13 per ton, at mine.

CHLORINE.—Contract renewals for chlorine are being booked in heavy volume for future delivery. Supplies are going forward in excellent volume for the season. Prices remain unchanged. Chlorine is quoted at $2.50 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—The rosin market continues to fluctuate. The grades of gum rosin used in the paper mills are now quoted at from $8.15 to $8.45, per 280 pounds, in barrels, on dock. Wood rosin is selling at from $6.55 to $7.70 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—Scarcity of salt cake is world-wide. European pulp and paper mills are making inquiries here regarding offerings and prices. The local market is firm. Salt cake is quoted at from $22 to $25 per ton, while chrome salt cake is selling at from $20 to $21 per ton, in bulk, at works.

SODA ASH.—Supplies of soda ash are going forward to the paper mills in satisfactory volume. Most consumers have already contracted for their requirements for the current year. Prices remain unchanged. Contract quotations, in car lots, at works, are: in bags, $1.32½; and in barrels, $1.55.

STARCH.—Steadiness prevails in the starch market. While the prevailing demand is rather light, there are a good number of inquiries around and the outlook for the future is promising. Special paper making starch is quoted at $3.82 per 100 pounds, in bags, and at $4.09 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—Demand for sulphate of alumina is persistent. The contract movement is satisfactory for the time of year. Prices are generally holding to schedule. Commercial grades are quoted at from $1.40 to $1.55, and iron free at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—Trading in the sulphur market is fairly active. Prices are unchanged. Sulphur is quoted at $18 per ton, at mine, for 1,000 tons, or over, on yearly contracts, and at $20 per ton for any smaller quantity over the same period. On spot and near by car loads, the quotation is $21 per ton.

TALC.—The talc market is moderately active. Shipments against contract are going forward in routine volume. Prices are holding to schedule. Domestic talc is still quoted at from $16 to $18 per ton, in bulk, at eastern mines, while imported talc is selling at from $18 to $20 per ton, in bags, ship side.

Market Quotations

Paper
(F. o. b. Mill)

Ledgers	11.00	@	38.00
Bonds	9.00	@	53.25
Writings—			
Extra Superfine	14.00	@	32.00
Superfine	14.00	@	32.00
Tub sized	10.00	@	15.00
Engine sized	8.00	@	11.00
Book, Cased—			
S. & S. C.	6.00	@	7.50
M. F.	5.75	@	7.00
Coated and Enamel	7.50	@	12.00
Lithograph	7.50	@	12.00
Tissues—Per Ream—			
White No. 1	.75	@	1.00
Anti-Tarnish	1.35	@	1.90
Colored	1.00	@	2.00
White No. 2	.75	@	.80
Kraft	1.00	@	1.10
Manila	.75	@	.80
Kraft—			
No. 1 Domestic	6.00	@	6.50
No. 2 Domestic	3.87½	@	5.00
Southern	3.75	@	4.50
Imported	6.50	@	7.00
Manila—			
No. 1 Jute	9.00	@	9.25
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.75	@	5.25
No. 2 Wood	4.00	@	4.50
Butchers	3.75	@	4.25
Fibre Papers—			
No. 1 Fibre	5.00	@	5.50
No. 2 Fibre	4.75	@	5.25
Common Bogus	2.75	@	3.00
Screenings	3.00	@	3.25
Card Middles	4.00	@	5.00
Glassine—			
Bleached, basis 25 lbs.	13.00	@	16.00
Bleached, basis 20 lbs.	15.00	@	16.00

(Delivered New York)

News, per ton—			
Rolls, contract	62.00	@	—
Rolls, spot	62.00	@	—
Sheets	67.00	@	—
Side Runs	47.00	@	52.00
Boards—per ton—			
News	37.50	@	40.00
Straw	52.50	@	55.00
Chip	35.00	@	37.50
Binders' Boards	65.00	@	70.00
Wood Pulp	80.00	@	85.00
65 Test Jute Liner	45.00	@	47.50
85 Test Jute Liner	50.00	@	55.00
Sgl. Mla. Lt. Chip	47.50	@	50.00

Mechanical Pulp
(On Dock)

No. 1 Imported—			
Moist	30.00	@	32.00
Dry	32.00	@	34.00

(F. o. b. Mill)

No. 1 Domestic	28.00	@	32.00
Screenings	15.00	@	20.00

Chemical Pulp
(On Dock, Atlantic Ports)

Sulphite (Imported)—			
Bleached	3.30	@	4.25
Easy Bleaching	2.90	@	3.15
No. 1 strong unbleached	2.65	@	2.75
Mitscherlich unbleached	2.70	@	3.00
No. 2 strong unbleached	2.40	@	2.60
No. 1 Kraft	2.35	@	2.50
No. 2 Kraft	2.30	@	2.40
Sulphate—			
Bleached	3.40	@	3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—			
Bleached	3.20	@	4.75
Easy Bleaching Sulphite	2.65	@	3.00
News Sulphite	2.50	@	2.70
Mitscherlich	3.00	@	3.25
Kraft (Domestic)	2.10	@	3.30
Soda Bleached	3.10	@	3.25
Sulphate Screenings—			
Coarse	.75	@	.95
Refined	1.65	@	1.85

Domestic Rags
New Rags
(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1	9.50	@	10.50
New White, No. 2	7.50	@	8.00
Silesias No. 1	7.50	@	8.00
New Unbleached	10.50	@	11.00
New Blue Prints	5.25	@	5.50
New Soft Blacks	5.25	@	5.75
Blue Overall	7.25	@	7.75
Washables	4.75	@	5.25
Fancy	5.50	@	6.00
Mixed Khaki Cuttings	4.75	@	5.25
Pink Corset Cuttings	8.00	@	8.50
O. D. Khaki Cuttings	5.15	@	5.75
Men's Corduroy	3.75	@	4.25
New Mixed Blacks	3.50	@	3.75

Old Rags

White, No. 1—			
Repacked	5.50	@	6.00
Miscellaneous	4.50	@	5.00
White, No. 2—			
Repacked	3.00	@	3.50
Miscellaneous	2.50	@	2.75
St. Soiled, White	2.00	@	2.15
Thirds and Blues—			
Repacked	2.25	@	2.50
Miscellaneous	1.75	@	2.00
Black Stockings	3.25	@	3.75
Roofing Rags—			
Cloth Strippings	1.70	@	1.80
No. 1	1.70	@	1.80
No. 2	1.55	@	1.65
No. 3	1.30	@	1.40
No. 4	1.25	@	1.35
No. 5A	.90	@	1.05

Foreign Rags
New Rags

New Dark Cuttings	2.50	@	3.00
New Mixed Cuttings	2.75	@	3.25
New Light Silesias	7.00	@	7.50
Light Flannelettes	7.50	@	8.00
Unbleached Cuttings	10.00	@	11.00
New White Cuttings	10.00	@	10.50
New Light Oxfords	7.00	@	7.50
New Light Prints	5.50	@	6.50

Old Rags

No. 1 White Linens	7.25	@	8.00
No. 2 White Linens	5.75	@	6.75
No. 3 White Linens	4.75	@	5.25
No. 4 White Linens	3.00	@	3.50
No. 1 White Cotton	5.50	@	6.50
No. 2 White Cotton	4.50	@	5.50
No. 3 White Cotton	3.00	@	4.00
No. 4 White Cotton	2.00	@	2.10
Extra Light Prints	2.75	@	3.25
Ord. Light Prints	2.25	@	2.50
Med. Light Prints	1.95	@	2.10
Dutch Blue Cottons	2.20	@	2.35
French Blue Linens	2.75	@	2.85
German Blue Linens	2.35	@	2.55
German Blue Cottons	2.10	@	2.20
Checks and Blues	1.85	@	2.00
Lindsay Garments	1.85	@	1.95
Dark Cottons	1.55	@	1.60
Old Shopperies	1.50	@	1.55
New Shopperies	1.50	@	1.55
French Blues	2.10	@	2.25

Old Rope and Bagging
(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	1.50	@	1.60
Domestic	1.60	@	1.70
Wool Tares, light	1.60	@	1.65
Wool Tares, Heavy	1.60	@	1.70
Bright Bagging	1.60	@	1.70
Small Mixed Rope	1.25	@	1.40
Manila Rope—			
Foreign	4.25	@	4.50
Domestic	4.75	@	5.00
New Burlap Cut	2.75	@	3.00
Hessian Jute Threads—			
Foreign	3.50	@	4.00
Domestic	3.25	@	3.50

Old Waste Papers
(F. o. b. New York)

Shavings—			
Hard, white, No. 1	3.00	@	3.25
Hard, white, No. 2	2.40	@	2.55
Soft, White, No. 1	2.40	@	2.55
White envelope cuttings	2.90	@	3.10
Flat Stock—			
Stitchless	1.45	@	1.55
Overissue Mag.	1.45	@	1.55
Solid Flat Book	1.40	@	1.50
Crumpled No. 1	1.00	@	1.10
Solid Book Ledger	2.00	@	2.10
Ledger Stock	1.40	@	1.50
New B. B. Chips	.45	@	.55
Manilas—			
New Env. Cut	2.40	@	2.60
New Cuttings	1.50	@	1.75
Extra No. 1 old	1.25	@	1.35
Print	.60	@	.65
Container	.40	@	.50
Bogus Wrapper	.60	@	.65
Old Kraft Machine Compressed bales	1.65	@	1.75
News—			
No. 1 White News	1.65	@	1.75
Strictly Overissue	.55	@	.65
Strictly Folded	.45	@	.55
No. 1 Mixed Paper	.25	@	.30
Common Paper	.15	@	.20

If it is uniform pulp that you want, use

EMPIRE PULP STONE

• • •

THE SMALLWOOD STONE CO.
STEUBENVILLE, OHIO

IN USE
SINCE 1898

Quarries
EMPIRE, OHIO
OPEKISKA, W. VA.

CLAY

EDGAR

500 TONS Daily

American made for American Trade

H. T. BRAND
COATING CLAY
and
High Grade Filler Clay

Edgar Clays are the result of almost half a century of experience in washing Clay. Technical service available for both coating and loading without charge.
Ask for Samples

EDGAR BROS. CO.
50 CHURCH ST. NEW YORK

ADOLPHE HURST & CO., Inc.
420 Lexington Avenue New York

announce enlarged facilities of their

CASEIN
Department

under the management of
Mr. William Rocamora

ARGENTINE CASEIN: "HALLEY" brand. Sole agency for the United States and Canada for Duprat Hnos, successors to Melano & Pettigiani, Buenos Aires.

FRENCH CASEIN: Prime Lactic and Rennet. A1 standardized quality only, ground and unground. Sole selling agency for Lucien Poirier, Paris.

CALIFORNIA CASEIN: Lactic and sulphuric, ground and unground, of standardized uniform quality.
All shipments guaranteed as to uniformity of quality.
Prices for shipment and from New York stock.

APPLY FOR TERMS AND SAMPLES

Wire us your inquiries collect. Direct private wires via "Postal Telegraph" and "Commercial Cable."

WOOD PULPS
All Grades

CHICAGO OFFICE:
1460 Conway Building,
111 West Washington St.

Acer, McLernon & Company Limited

CANADA CEMENT BUILDING
MONTREAL, P. Q.

Twines
(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.19	@	.21
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger	.16	@	.17
Fine Tube Yarn—			
5-ply and larger	.21	@	.25
4-ply	.25	@	.29
3-ply	.28	@	.32
Unfinished India—			
Basis	.13	@	.14
Paper Makers Twine			
Balls	.11	@	.12
Box Twine, 2-3 ply	.15	@	.17
Jute Rope	.17	@	.19
Amer. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.16	@	.18
No. 2 Basis	.14	@	.16
Sisal Lath Yarn—			
No. 1	.14	@	.16
No. 2	.12	@	.14
Manila Rope	.22	@	.24

CHICAGO

Paper
(F. o. b. Mill)

Rag Bond	.30	@	.53¾
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¼	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.06¼	@	.06½
Southern Kraft	4.25	@	4.50
No. 2 Kraft	.04	@	.04¼
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¾
Manila Tissue—			
24x36 Sheet	.07	@	.07¼
White Tissue—			
20x20 Sheet	.07¼	@	.07½
(Delivered Central Territory)			
News, per ton—			
Rolls, contract	62.00	@	—
Sheets	67.00	@	—
Boards, per ton—			
Plain Chip	37.50	@	42.50
Solid News	47.50	@	—
Solid News	40.00	@	45.00
Manila Lined Chip	50.00	@	55.00
Container Lined—			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers
(F. o. b. Chicago)

Shavings—			
No. 1 Hard White.	2.35	@	2.40
White Env. Cuttings	2.60	@	2.65
No. 1 Soft Shavings.	2.10	@	2.15
No. 1 Mixed	.60	@	.70
No. 2 Mixed	.50	@	.60
Ledger & Writings	1.25	@	1.35
Solid Books	1.05	@	1.10
Blanks	1.60	@	1.65
Kraffs	1.65	@	1.75
New Kraft Cuts	2.15	@	2.25
Manila Envelope Cuttings	1.75	@	1.80
Ex. No. 1 Manila	1.30	@	1.45
Print Manila	.60	@	.70
Folded News (over-issue	.60	@	.65
Old Newspapers—			
No. 1	.60	@	.65
No. 2	.50	@	.55
Mixed Papers—			
No. 1	.40	@	.50
Roofing Stocks—			
(F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper
(F. o. b. Mill)

Bonds	.06	@	.40
Ledgers	.09	@	.40
Writings—			
Superfine	.12½	@	.18
Extra fine	.18	@	.22
Fine	.17	@	.26
Fine, No. 2	.15	@	.25
Fine, No. 3	.10	@	.20
Book, M. F.	.05½	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.09½	@	.16
Coated Lithograph	.07	@	.11
Label	.07	@	.11
No. 1 Jute Manila	.08	@	.09
Manila Sul., No. 1	.04	@	.05½
Manila No. 2	.03	@	.04
No. 2 Kraft	.05	@	.06
No. 1 Kraft	.06	@	.06½
Common Bogus	.03½	@	.04
(Delivered Philadelphia)			
News Print Rolls	62.00	@	—
Straw Board	52.50	@	70.00
News Board	37.50	@	40.00
Chip Board	35.00	@	47.50
Wood Pulp Board	85.00	@	95.00
Binder Boards—			
No. 1, per ton	75.00		
No. 2, per ton	70.00		
Carload lots	68.00	@	70.00
Tarred Felts—			
Regular	55.50	@	57.00
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply	2.00	@	2.25

Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.10½	@	.11
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07	@	.09
Black Silesia, soft.	.05	@	.05½
New Unbleached	.10½	@	.11
Washable, No. 1	.04½	@	.05
Blue Overall	.07½	@	.09
Cottons—According to grades—			
Washable, No. 2	.03	@	—
New Blue	.03	@	.03½
Fancy	.05½	@	.06
New Black Soft	.05	@	.05¾
New Light Seconds	.02½	@	.03
New Dark Seconds	1.85	@	2.00
Khaki Cuttings—			
No. 1 O. D.	.05½	@	.05¾
No. 2 Mixed	.04½	@	.04¾
Corduroy	.03	@	.03½
New Canvas	.08½	@	.09
New Black Mixed.	.03¾	@	.04½

Bagging
(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.50	@	1.60
Domestic	1.75	@	—
Manila Rope	3.50	@	4.00
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps—			
No. 1	1.50	@	1.60
No. 2	1.10	@	1.20
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	2.00	@	2.25

Old Papers
(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.20	@	3.25
No. 2 Hard White	2.75	@	3.00
No. 1 Soft White.	2.80	@	2.90
No. 2 Soft White.	1.80	@	1.90
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	1.85	@	1.90
Writing Paper	1.30	@	1.40
No. 1 Books, heavy	1.25	@	1.35
No. 2 Books, light	.90	@	1.00
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	.40	@	.50
Container Manila	.25	@	.35
Old Kraft	1.60	@	1.70
Common paper	.15	@	.20
No. 1 Mixed Paper	.15	@	.20
Straw Board, Chip	.40	@	.50
Binders Board, Chip.	.35	@	.45
Overissue News	.60	@	.70
Old Newspaper	.25	@	.30

Domestic Rags (Old)

White, No. 1—			
Repacked	4.25	@	4.50
Miscellaneous	3.50	@	3.75
White, No. 2	2.00	@	2.25
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.60	@	1.80
Black Stockings (Export)	3.90	@	4.25
Roofing Stock—			
Foreign No. 1	1.65	@	1.75
Repacked	.01⅓	@	.01½
No. 2	1.20	@	1.25
No. 3 (Roofing)	1.10	@	1.20
No. 4	1.00	@	1.10
No. 5A	.75	@	.85
B	65	@	.75
C	.65	@	.75

BOSTON

Paper
(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.12½
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.06½	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.06¼	@	.06½
No. 2 Kraft	.03¾	@	.05
Common Bogus	.02	@	.02¾
Delivered New England points			
News Print Rolls	61.50	@	—
Straw Boards, rolls .009	52.50		
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board	37.50	@	40.00
Chip Board	35.00	@	37.50
Single Manila Lined Chip	47.50	@	52.50
Single White, Patent Coated Newsboard Render	65.00	@	80.00
Wood Pulp Board	75.00	@	80.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers
(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White.	2.40	@	2.50
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.35	@	2.45
No. 1 Books, Heavy.	1.50	@	1.55
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	.90	@	1.00
White Blank News	1.60	@	1.70
Old Kraft	1.55	@	1.65
Print Manila	.80	@	.90
No. 1 Mixed Paper	.30	@	.35
Overissue News	.45	@	.55
Old Newspapers	.45	@	.50
Box Board, Chip	.45	@	.50

Bagging
(F. o. b. Boston)

Gunny No. 1—			
Foreign	1.40	@	1.55
Manila Rope—			
Foreign	4.25	@	4.40
Domestic	—	@	4.50
Transmission Rope	—	@	2.75
Mixed Strings	.90	@	1.00
Jute Wool Strings	1.00	@	1.05
Jute Carpet Threads.	1.05	@	1.15
Scrap Burlaps	—	@	1.35
Scrap Sisal	1.55	@	1.75
Scrap Sisal for shredding	1.75	@	2.00
Wool Tares, heavy	1.60	@	—
New Burlap Cutting.	1.90	@	2.00
Australian Wool Pouches	3.00	@	3.12½

Domestic Rags (New)
(F. o. b. Boston)

Shirt Cuttings—			
New White No. 1.	.09½	@	.10
Silesias, No. 1	.06	@	.06¼
New Unbleached	.10	@	.10½
Fancy	.04	@	.04½
Washable	.04	@	.04½
Cottons—According to grades			
Blue Overalls	.06¼	@	.06¾
New Black, soft	.04	@	.04¼
Khaki Cuttings	.04	@	.04¼
O. D. Khaki	.05	@	—
Corduroy	.03	@	.03¼
New Canvas	.08	@	.08½

Domestic Rags (Old)
(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Twos and Blues	2.75	@	3.00
Thirds and Blues—			
Repacked	2.25	@	2.50
Miscellaneous	1.75	@	1.90
Black Stockings	—	@	4.00
Roofing Stock—			
No. 1	1.65	@	1.75
No. 2	1.40	@	1.50
No. 3	1.05	@	1.10
No. 4	1.10	@	1.15

Foreign Rags
(F. o. b. Boston)

Dark Cottons	1.50	@	1.55
New No. 1 Shirt Cuttings	9.00	@	9.50
Dutch Blues	2.00	@	2.12½
Lace Curtains	4.75	@	5.00
New Checks & Blues	4.25	@	4.60
Old Fustians	1.90	@	2.00
Old Linsey Garments	1.85	@	1.90

TORONTO

Paper
(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¼	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M. F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and Litho	13.25	@	—
No. 2 Coated and Litho	12.25	@	—
No. 3 Coated and Litho	11.50	@	—
Coated tinted	14.50	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Wrap	5.25	@	—
"B" Manila	5.80	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.00	@	—

(Delivered Toronto)

News, per ton—			
Rolls (contract)	61.50	@	62.00
Sheets	67.00	@	—

Pulp
(F. o. b. Mill)

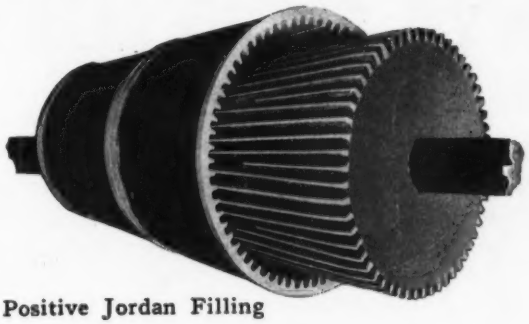
Ground Wood	31.00	@	32.00
Sulphite easy bleaching	60.00	@	—
Sulphite news grade	60.00	@	—
Sulphite, bleached	77.00	@	78.00
Sulphate	60.00	@	—

Old Waste Paper
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut.	3.00	@	—
Soft White Book Shavings	2.85	@	—
White Blk. News	1.60	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.40	@	—
Light and Crumpled Book Stock.	1.25	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue.	.85	@	—
Strictly Folded	.85	@	—
No. 1 Mixed Paper	.65	@	—

Domestic Rags
(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.09¼	@	.10
Fancy Shirt Cuttings	.06	@	.06¼



Positive Jordan Filling

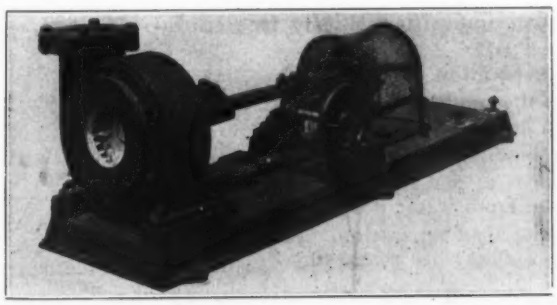
STOP

Old man Bahr says:

In order to meet the keen competition existing in the mills of today, use the Bahr Positive Improved Jordan Filling to prepare your stock "for capacity", the lowest first cost, and longest life of service.

Manufactured by THE BAHR BROTHERS' MFG. CO.,
MARION, INDIANA, U. S. A.

Trade Mark	Cable Address
POSITIVE	POSITIVE
Reg. U. S. Pat. Off.	Western Union Code



Bahr Centrifugal Refiner

Built for belt drive, or direct connected.

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-EIGHTH YEAR

Published Every Thursday by the
LOCKWOOD TRADE JOURNAL CO., Inc.

GEO. S. MACDONALD, President — J. BANNINGA, Sec.-Treas.

Executive and Editorial Offices: 10 East 39th Street, New York
Chicago Office: 123 West Madison St.

TABLE OF CONTENTS

Copyright, 1930, by the Lockwood Trade Journal Co., Inc.

Awards for Government Paper 23
Canadian Pulp and Paper Men Meet 30
Paper Mill Employment 37
Boston Paper Market Irregular 37
Bids and Awards for Government Paper 37
Whalen Pulp and Paper Action Dismissed 38
Pacific Paper & Products Co. Formed 39
News of the Boston Paper Trade 39
Bright Outlook in Wisconsin 40
J. Kindleberger to Visit Holy Land 40
Slight Increase in Indianapolis 40
Chicago Paper Market in Transitory Position 41
Louisville Paper Co. Entertains Editors 41
Paper Demand is Listless in Philadelphia 42
Russian Engineers Visit Bagley & Sewall 42
Premier Reveals Agreement with I. P. 44
Longview Fibre Co. Joins TAPPI 44
Obituary 46
New York to Add Tree Nurseries 48
Griffith-Hope Co. Expands 48
New York Trade Jottings 53
Construction News 54
Cost and Technical Men to Meet 56
Dr. West Reappointed Lt. Colonel 56
Power Plant Section **58**
Bryant Paper Co. Makes Good Report 66
Editorial **68**
Buys Large Pulpwood Tract 69
Cleveland Wax Paper Co. in New Plant 69
Technical Section
Scandinavian Sulphite Manufacture 71
Hard Cockles in Loft Dried Paper 73
United States Patents on Papermaking 74
Report of the Paper Board Committee 76
Current Paper Trade Literature 77
Cost Section **84**
Imports of Paper and Paper Stock 84
New York Market Review **88**
Miscellaneous Markets **90**
Market Quotations **90**

THE PAPER TRADE JOURNAL is indexed in Industrial Arts Index

Want and For Sale Advertisements, 96, 97, 98

Advertising matter paged consecutively with
text, has been removed here to lessen
the bulk of this volume.